

# **AMERICAN GAS ASSOCIATION MONTHLY**

**OCTOBER • 1934**

**Gas Men Ready For Convention**

•

**Natural Gas Course—How and  
Why Prepared**

C. M. YOUNG

•

**Electric Cooking Competition**

C. L. TREVITT

•

**Housing Program Cooperation**



# Here is Your Opportunity to Know The Natural Gas Business

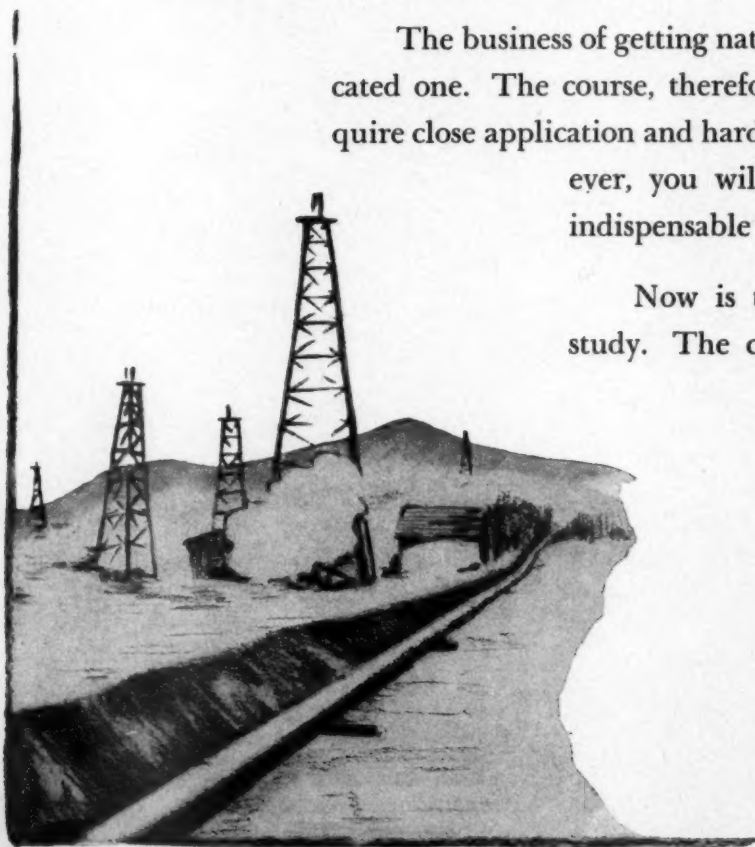
If you are one of the thousands in the industry who has craved for a better technical knowledge of your work, here are the "tools" you have been looking for. The University of Kansas, the Natural Gas Department of the American Gas Association and the United States mails, have united to bring a practical home study course on Natural Gas to your door.

The course consists of 27 lessons and covers all phases of natural gas operation from the general consideration of chemistry and physics and the origin of gas and oil, through all the steps in production, transmission, distribution, to and including utilization.

The business of getting natural gas to the user is a complicated one. The course, therefore, is no sinecure. It will require close application and hard study. Once completed, however, you will have acquired a knowledge indispensable to future advancement.

Now is the time to plan a winter of study. The course is ready, awaiting your enrollment. The next move is up to you.

Further information may be secured from Kurwin R. Boyes, Secretary, A.G.A., 420 Lexington Ave., New York, or University Extension Division, The University of Kansas, Lawrence, Kansas.



# AMERICAN GAS ASSOCIATION MONTHLY

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Gas appliance and equipment exhibition held in the Atlantic City Auditorium in 1931. In this beautiful setting will be staged the 1934 exhibition, the super attraction of the forthcoming Convention, October 29-November 2.



# AMERICAN GAS ASSOCIATION MONTHLY

James M. Beall, Editor

## Gas Men Ready For Another Outstanding Convention and Exhibition

WITH the exception of a few additions yet to be made to the business and entertainment programs, everything is ready for the staging of the Association's Sixteenth Annual Convention and Exhibition in the massive Auditorium at Atlantic City, starting Monday, October 29, and extending through Friday, November 2.

Recognized as foremost among the "reasons why" delegates and their guests from all parts of the country will attend this year's gathering is the exhibition of appliances and apparatus—the first show of its kind in three years and, unquestionably, one of the most important exhibits from an educational viewpoint that the industry has ever sponsored.

The three years that have passed since the 1931 show at Atlantic City have brought about some remarkable changes in the art of appliance and apparatus design, construction and utilization. Into this brief period have been packed the improvements that might normally take place in a fifteen-year period. The whole line of domestic appliances has undergone such revolutionary changes that many models but three years old are today definitely out of step if not downright obsolete.

No less significant has been the trend in the apparatus field. New load-building campaigns, particularly house heating, have brought new demands and load factors upon manufac-

turing equipment and distribution systems. As a result, the exhibition will feature many outstanding improvements and innovations in production technique and distribution practice.

The enthusiasm already manifested by the manufacturers in their coming exhibition is without precedent, and the officials of gas companies, keenly aware of the significance of this year's

show, are bending every effort to secure the attendance of their dealers and representative members of their own organizations. In a letter to the industry, dated September 11, President Caster referred to the exhibition as a "stellar attraction" and appealed to all executives of gas companies to invite their dealers to visit the exhibition. "By extending such an invitation in person or by letter," he wrote, "we will further cement the friendly relations existing between our industry and its dealers, and at the same time broadcast word of the exhibition in quarters where it will do us the most good."

The exhibition will open at nine o'clock on Monday morning, October 29, and will remain open during the daytime until noon of Friday, November 2. On Monday evening, however, the exhibition will have its only night opening during the week, at which time the band of the Washington Gas Light Company will give a concert.

The committee in charge of the exhibition consists of: John A. Fry, Detroit-Michigan Stove Co., Detroit, Mich., Chairman; Frank H. Adams, Surface Combustion Corp., Toledo, Ohio; Merrill N. Davis, S. R. Dresser Manufacturing Co., Bradford, Pa.; J. Scott Fowler, Lovekin Water Heater Co., Philadelphia, Pa.; W. P. Hutchinson, Sprague Meter Co., Bridgeport,



President Caster

Conn.; H. J. Johnson, Remington-Rand Inc., Buffalo, N. Y.; W. T. Rasch, American Gas Products Corp., New York, N. Y.; F. E. Sellman, Electrolux Refrigerator Sales, Inc., New York, N. Y.; W. H. Wright, Semet-Solvay Engineering Corp., New York, N. Y., and C. W. Berghorn.

#### Entertainment

Entertainment features will be fully up to the standard of past conventions. Among the headliners, secured through the courtesy of Cities Service Company, are Jessica Dragonette and The Revelers, exclusive radio stars of that company. It will be remembered by those who attended the 1930 Convention that Miss Dragonette and the Cities Service Quartet were the outstanding hits of the Convention entertainment program.

Miss Dragonette, whose exquisite lyric soprano voice is one of the best known over the radio, is young, blond and lovely. She has sung to millions of radio listeners in numerous Cities Service programs over a National Broadcasting Company network. Her amazing record of success includes being voted the most popular woman singer on the air. She has memorized more than 500 songs and 75 operettas—and never uses notes when she sings.

The Revelers Quartet, acknowledged to be the most popular quartet on the air today, will appear on the program with Miss Dragonette. The quartet consists of Frank Parker, tenor; El-



Jessica Dragonette



The Revelers

liott Shaw, baritone; Lewis James, second tenor; and Wilfred Glenn, basso.

An orchestra in keeping with the artistic standing of the above headliners will round out the concert program and provide music for dancing.

#### Washington Band

The Washington Gas Light Company band is composed of sixty members, largely from the distribution and manufacturing departments of that company. On Monday evening, October 29, the band will parade from the Steel Pier down the Boardwalk to the Auditorium, and will open its concert in the Exhibit Hall at 8 o'clock. The band is led by Otto Siebeneichen, U. S. Army retired, who has had thirty years' service as a band leader. Although it was organized as recently as January, 1931, it has participated in all of the important civic and patriotic parades in Washington, D. C., including President Roosevelt's inaugural parade. It has won numerous prizes locally for its appearance and musical ability, having won either first or second place in every competition in which it has entered where prizes were awarded.

On Monday evening, the natural gas men are invited to attend a special entertainment function in the Ball

Room of the Auditorium at 9 o'clock. This entertainment is intended to revive natural gas memories of the past, and an appropriate program has been arranged, details of which will be issued shortly.

As on former occasions, delegates to the Convention and their guests may enjoy the facilities of the Seaview Golf Club. Courtesy cards will be available at the Registration Desk in the Auditorium.

Following are members of the Entertainment Committee:

J. D. Creveling, Chairman, New York; C. W. Berghorn, Secretary, New York; H. M. Brundage, Jr., Washington, D. C.; T. E. Bullion, Detroit, Michigan; L. B. Crossman, Boston, Mass.; H. A. Ehrmann, New York City; Walter Fowler, Philadelphia, Pa.; Ed. Guyer, Chicago, Ill.; W. P. Hutchinson, Bridgeport, Conn.; J. W. Moore, Birmingham, Ala.; W. G. Murfit, Philadelphia, Pa.; George Ostlund, New York City; Miss Helen Reid, New York City; Earl Roberts, Detroit, Michigan; John Robertshaw, Youngwood, Pa.; J. D. Taylor, Washington, D. C.; R. W. Wiederwax, Atlantic City, N. J., and J. A. Woodward, Chicago, Ill.

Business sessions of the convention get under way at five o'clock on Sunday evening with the meeting of the

Manufacturers' Section, followed by a meeting of the Gas Appliances Institute. The following day, Monday, will see the Natural Gas Department in session, with both morning and afternoon meetings, and in the evening the annual dinner of the Executive, Managing and Advisory Committees. The next three days, Tuesday, Wednesday and Thursday, will be occupied by meetings of General Sessions and the various sections, the former taking place in the morning and the latter in the afternoon.

### *Innovations*

Several innovations have been introduced into the business programs, some of which take the form of luncheon symposiums. The Home Service Committee will set the pace for early risers with a breakfast meeting on Wednesday morning at 8:30 o'clock at which two-minute talks will be made by home service directors. On Wednesday the Accounting Section will hold its luncheon conference, and on Thursday the recently created Publicity and Advertising Committee will stage its luncheon symposium at which some pertinent advertising questions will be discussed informally. Chief among these is "Advertising in Competition with Government Sponsored Business." Exhibits of current gas company advertising will be featured. Members of the Public Utilities Advertising Association

have also been invited to attend this advertising symposium.

A special effort has been made this year to build a business program that meets today's requirements of the individual gas man. Speakers and topics have been chosen with this objective in mind, and a study of the business programs that follow will reveal that no vital problem of the day that is pressing for solution has been overlooked.

General Sessions meetings will be held in the Grand Ballroom of the Auditorium. Featured at the three morning meetings are a number of addresses and reports of more than usual significance this year because of national economic conditions. President Caster, whose recent appearances before gatherings of gas men have had a stimulating influence on sentiment, will comment on conditions prevailing in the industry, and will review the national outlook from the point of view of the gas man.

Alexander Forward, managing director of the Association, will give a

resumé of the Association's activities during the past year, and there will be brief reports by chairmen of some of the Association's general committees.

F. T. Rainey, The Ohio Fuel Gas Company, Columbus, Ohio, will contribute an address on "Selling Industrial Gas." Mr. Rainey's record as a successful promoter of industrial gas business makes him particularly well qualified to deliver a talk of practical value.

Clifford E. Paige, The Brooklyn Union Gas Company, who was a delegate to the International Gas Conference held at Zurich, Switzerland, in September, will bring to the Convention a concise review of the most important matters discussed at that meeting.

Of particular interest to manufacturers, dealers and sales managers, will be the address of George E. Frazer, of Chicago. Mr. Frazer is counsel for the Gas Appliances Institute. He will talk on "The Manufacturer, the Utility, and Dealer Relations."

Another address that is expected to strike a popular note will be contributed by Lyle C. Harvey, of the Bryant Heater Company, Cleveland, Ohio. Mr. Harvey will describe the sales possibilities existing in the air conditioning field. The title of his address is

"The Gas Industry's Next Opportunity."

Delegates who have been looking forward to an authoritative analysis of present day business conditions will welcome the address "The National



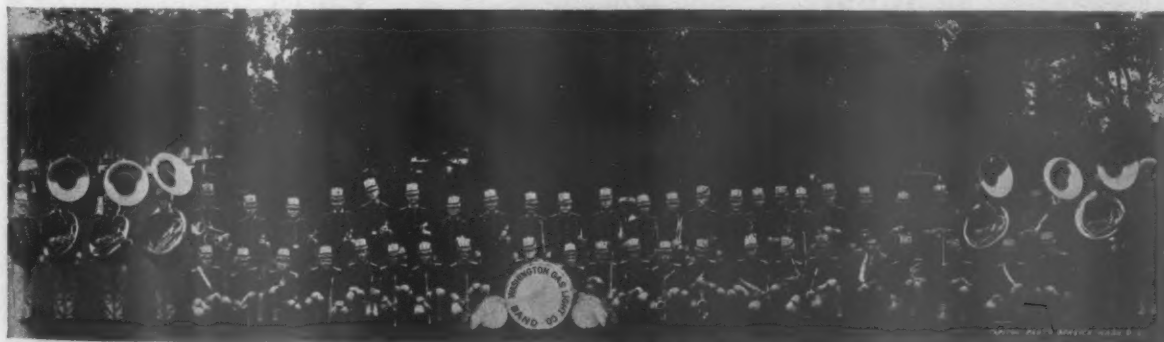
J. J. Maughn



Otto Siebeneichen



Dorothy Reddish



Employee band of the Washington Gas Light Company



Dr. Neil Carothers, Professor of Economics and Director of the College of Business Administration at Lehigh University, will deliver an address before the General Sessions



Dr. Neil Carothers

on "The National Economic Situation"—a subject which is at the forefront of discussion today.

After graduating from the University of Arkansas in 1904, Dr. Carothers attended Oxford University, England, as a Rhodes scholar. Returning to the United States, he received his Ph.D. degree at Princeton in 1916. During the next four years he was assistant professor of economics and preceptor in economics and finance at Princeton. From 1920 to 1923 he was connected with the Guaranty Trust Company of New York, and since the latter date has been with Lehigh University.

Dr. Carothers is a member of many associations, and an author of the book "Fractional Money" published in 1930.

Economic Situation" by Dr. Neil Carothers of Lehigh University, Bethlehem, Pa. With a background of practical experience in business, Dr. Carothers is well qualified to present a subject which is at the forefront of discussion today.

In addition to the foregoing it is planned to secure four prominent speakers who will contribute short addresses in a symposium on Mass Selling.

Supplementing the above will be the presentation of the Charles A. Munroe and Beal Awards, the report of the Time and Place Committee for the 1935 meeting, the presentation of blue vases to winners in the Refrigerator Sales Contest, the election of officers, the annual report of the treasurer, and the report of the Committee on Resolutions.

The tentative programs of sectional meetings follow:

#### FIRST ACCOUNTING SESSION

TUESDAY, OCTOBER 30

2 P.M.

##### Auditorium

#### Opening Remarks by Chairman

E. B. NUTT, Standard Oil Co. of New Jersey, Pittsburg, Pa.

#### Report of Nominating Committee

J. M. ROBERTS, *Chairman*, The Peoples Gas Light & Coke Co., Chicago, Ill.

#### Affiliated Representatives Committee

A. S. CORSON, *Chairman*, United Gas Improvement Co., Philadelphia, Pa.

#### Compendium Committee

C. J. FUE, *Chairman*, The Brooklyn Union Gas Co., Brooklyn, N. Y.

#### Luncheon Conference Committee

A. S. CORSON, *Chairman*, United Gas Improvement Co., Philadelphia, Pa.

#### General Accounting Committee

F. J. BISCHOFF, JR., *Chairman*, Consolidated Gas Co. of N. Y., New York, N. Y.

(a) Coding Systems for Accounts  
F. W. COOPER, *Chairman*, Newark, N. J.

(b) Transmission & Distribution Accounts (Comparative Practices)

E. R. ROTRAMEL, Chicago, Ill., *Chairman*.

#### Office Management Committee

E. J. TUCKER, *Chairman*, The Consumers Gas Co. of Toronto, Toronto, Canada.

(a) Filing Systems

(1) Centralized Filing

(2) Corporate Filing

J. F. WEEKS, *Chairman*, Brooklyn, N. Y.

(b) Wage Incentives for Collectors

J. J. NATALE, *Chairman*, Philadelphia, Pa.

#### Accounting Machines Committee

W. S. BOWSER, *Chairman*, The Koppers Co., Pittsburgh, Pa.

(a) Billing Machine Developments  
H. E. CLIFF, *Chairman*, Newark, N. J.

(b) Photo Strip Accounting

J. M. KRAMARSIK, *Chairman*, Hartford, Conn.

(c) Wrinkles

J. W. MACKIE, *Chairman*, Wilmington, Del.

#### SECOND ACCOUNTING SESSION

THURSDAY, NOVEMBER 1

2 P.M.

##### Auditorium

#### Uniform Classification of Accounts Committee

H. M. BRUNDAGE, *Chairman*, Consolidated Gas Co. of N. Y., New York, N. Y.

#### Natural Gas Representatives Committee

L. L. DYER, *Chairman*, Lone Star Gas Co., Dallas, Tex.

#### Natural Gas Procedures

F. PETERS, Oklahoma Natural Gas Corp., Tulsa, Okla.

#### Customer Accounting Committee

E. N. KELLER, *Chairman*, Philadelphia Electric Co., Philadelphia, Pa.

(a) Customers' Deposits

R. B. MILNE, *Chairman*, New York, N. Y.

(b) Control of Customer Accounting Procedures

L. A. MAYO, *Chairman*, Hartford, Conn.

(c) Cash Receiving Procedure

W. H. GOFORTH, *Chairman*, Philadelphia, Pa.

#### The Accountant's Place in Executive Planning and Coordination of Department Functions

J. I. BLANCHFIELD, The Brooklyn Union Gas Co., Brooklyn, N. Y.

#### Customers Relations Committee

W. G. MURFIT, *Chairman*, Philadelphia Gas Works Co., Philadelphia, Pa.

(a) Effect of Credit & Collection Policies on Customer Relations

S. H. CORSON, *Chairman*, Jenkintown, Pa.

An address embracing a forecast of the opportunities existing in one of the largest heat using industries, that of ceramics, will be delivered before the Industrial Gas Section meeting on Tuesday, October 30, by Leonard Scott Briggs, Ceramic Engineer of Lenox, Inc., Trenton, N. J.



Leonard S. Briggs

Mr. Briggs is a graduate of Rutgers University, and from 1912 to 1921 was engaged as a ceramic engineer in the production of building materials for the National Fire Proofing Company, Pittsburgh, Pa. Since 1921 he has been ceramic engineer in the production of fine china and porcelain for Lenox, Inc.

Mr. Briggs is an active member of the American Ceramic Society, and the New Jersey Ceramic Society. The title of his address will be "Ceramics and the Potential Market for the Gas Industry."



## (b) Customer Relations in Smaller Communities

J. B. JONES, *Chairman*, Bridgeton, N. J.

## (c) Management's Responsibility in Employee Customer Contacts

LOUIS STOECKER, *Chairman*, Newark, N. J.

## FIRST COMMERCIAL SESSION

TUESDAY, OCTOBER 30

2 P.M.

## Auditorium

## Address of Chairman

N. T. SELLMAN, Consolidated Gas Company of N. Y., New York, N. Y.

## What a National Campaign Like the Blue Vase Contest Can Do for the Industry

R. A. MALONY, *Chairman*, Refrigeration Committee, The Philadelphia Gas Works Co., Philadelphia, Pa.

## Developments in Water Heating Sales Methods

DAVIS DEBARD, Stone &amp; Webster Service Corp., New York, N. Y.

## Cooperative Range Campaign The Pacific Coast

F. M. BANKS, Southern California Gas Co., Los Angeles, Calif.

"Silica Gel and Its Uses in Conditioning Air and Gases for Industrial Processing" will be the subject of a paper delivered before the meeting of the Industrial Gas Section on Tuesday, October 30, by J. Maynard Lednum, who has been an official of the Silica Gel Corporation since 1916.

Mr. Lednum is a graduate of the University of Maryland. He received the degree of Bachelor in Engineering from Johns Hopkins University in 1915. Since 1920 he has been active in the development of the uses of Silica Gel for commercial and industrial applications. He will bring to the Convention the latest information on the progress of gas air conditioning in connection with manufacturing processes—a topic of live and timely interest.



J. Maynard Lednum

## The Gas Appliance Society of Chicago

C. A. LUTHER, The Peoples Gas Light &amp; Coke Co., Chicago, Ill.

## SECOND COMMERCIAL SESSION

WEDNESDAY, OCTOBER 31

2 P.M.

## Auditorium

## Symposium—Electric Competition in the Domestic Field

W. W. WINTER, Atlanta Gas Light Co., Atlanta, Ga.; A. J. Goss, Chattanooga Gas Co., Chattanooga, Tenn.; S. E. LINTON, Nashville Gas &amp; Heating Co., Nashville, Tenn.; H. G. BONNER, The Knoxville Gas Co., Knoxville, Tenn.

## Gas Industry and Home Modernization

H. P. J. STEINMETZ, Public Service Electric &amp; Gas Co., Newark, N. J.

## Why a Major House Heating Campaign—Its Advantages and Results

VICTOR STARZENSKI, New York Power &amp; Light Corp., Albany, N. Y.

## Sales Development Plans

H. E. DEXTER, Central Hudson Gas &amp; Electric Corp., Poughkeepsie, N. Y.

## How Gas Companies Should Prepare for Summer Air Conditioning Sales

J. C. PATTERSON, Bryant Heater Co., Cleveland, Ohio.

## Flood Lighting

Speaker to be selected.

## HOME SERVICE COMMITTEE

## HOME SERVICE BREAKFAST

WEDNESDAY, OCTOBER 31

8:30 A.M.

## Hotel Shelburne

(Reservations must be made by 5 P.M. Tuesday, October 30, at A. G. A. Registration Desk, Auditorium. Tickets \$1.25.)

## Home Service Activities—Group of two-minute talks by home service directors. Led by the Chairman of the Home Service Committee.

DOROTHY E. SHANK, American Stove Company, Cleveland, Ohio.

## Talks: Demonstrations in Homes; Girl Scout Classes; Home Service Plays; Regional Meetings; School Cooperation in Home Call Work; Children's Cookery Classes.

## Home Modernization Plan as It Affects Home Service

RUTH SOULE, Brooklyn Union Gas Company, Brooklyn, N. Y.

George E. Frazer, of Chicago, member of Frazer and Torbet, accountants, and counsel for the Gas Appliances Institute, will contribute a General Sessions address on "The Manufacturer, the Utility and Dealer Relations."



George E. Frazer

Mr. Frazer became a member of the Wisconsin bar in 1912 and the Illinois bar in 1916. He was consulting accountant of the City of Milwaukee, 1911, Professor of Public Accounting and Comptroller, University of Illinois, 1913-15, and general auditor, Montgomery Ward and Co., 1915-17.

In 1917 Mr. Frazer devised the Illinois State financial system. The following year he became Director of Finance, United States Government, and in 1919 became a member of the Committee on Financial Administration, U. S. Shipping Board, Emergency Fleet Corporation. As general counsel to the Governor and Legislature, State of Ohio, he assisted in the reorganization of the government of that State in 1921.

Mr. Frazer is the author of numerous technical papers on finance and business management.

## SECOND HOME SERVICE COMMITTEE SESSION

WEDNESDAY, OCTOBER 31

4 P.M.

## Crane Building—Next Door to Auditorium

## Consumer Standards

ALICE EDWARDS, American Home Economics Association, Washington, D. C.

## Newer Knowledge of Meat Cookery

INEZ WILLSON, National Live Stock &amp; Meat Board, Chicago, Ill.



Dorothy E. Shank

## Water Temperatures in Home Laundering

FAYE HAMILTON, McCall's Magazine, New York, N. Y.

Franklin T. Rainey, Business promotion manager of Columbia System's Columbus Group of gas companies, comes out of a background that is rich in experience to prepare him for an address on "Selling Industrial Gas" before General Sessions.



Franklin T. Rainey

Graduating in engineering from Pennsylvania State College, Mr. Rainey went with the Henry L. Doherty & Company in the industrial heating department which was the first of its kind in the United States. Three years later, he became an industrial sales engineer in the Chicago territory of the Surface Combustion Corporation at Toledo, a Doherty subsidiary. After two years he went with the Toledo Edison Company, another Doherty property, as industrial engineer in the manufactured gas division.

When Cities Service Company sold the manufactured gas division of Toledo Edison to Columbia System, Mr. Rainey became industrial sales manager for The Ohio Fuel Gas Company, where he managed industrial gas sales for the five companies comprising Columbia System's Columbus Group. Under his direction industrial gas sales of the Columbus Group have climbed steadily during the last three years until the volume now exceeds the former peak year of 1929. Last year, he was made Business Promotion Manager for these companies, assuming supervision of domestic and industrial gas sales, merchandise sales, advertising, and home service.

#### Home Service Abroad

DOROTHY DIGNAM, N. W. Ayer & Son, Philadelphia, Pa.; KAREN FLA-DOES, Equitable Gas Co., Pittsburgh, Pa.

#### FIRST INDUSTRIAL GAS SESSION

TUESDAY, OCTOBER 30

2 P.M.

Auditorium

#### Chairman's Address

F. B. JONES, Equitable Gas Company, Pittsburgh, Pa.

#### Manufacturing the Oldest Mechanical Art

L. S. BRIGGS, Ceramic Engineer, Lenox, Inc., Trenton, N. J.

Silica Gel and Its Uses in Conditioning Air and Gases for Industrial Processing.

J. MAYNARD LEDNUM, Engineer, Silica Gel Corporation, Baltimore, Md.

Market for and Promotion of Retail Industrial Gas Sales

H. A. SUTTON, Public Service Electric and Gas Co., Newark, N. J.

#### SECOND INDUSTRIAL GAS SESSION

WEDNESDAY, OCTOBER 31

2 P.M.

Auditorium

Round Table Discussion

Furnace Atmosphere Control

W. M. HEPBURN, Surface Combustion Corp., Toledo, Ohio.

Effective Saving of Gas Fuel by Use of Insulation Refractory Materials

R. P. WILSON, The Philadelphia Gas Works Co., Philadelphia, Pa.

Light Fuel Oil Competition

C. G. SEGELER, American Gas Association, New York, N. Y.

Instances of Unusual Applications of Gas Fuel

C. W. GALE, Public Service Company of Colorado, Denver, Colo.

#### THIRD INDUSTRIAL GAS SESSION

THURSDAY, NOVEMBER 1

2 P.M.

Auditorium

Hotel, Restaurant and Food Products Sales Symposium

Restaurant, Hotel, Food Preparation and Control Devices

C. F. STODDARD, Butler Hall, New York, N. Y.

Competitive Situation and How to Combat It in the Small and Large Bakery

F. H. TREMBLY, JR., Philadelphia Gas Works Co., Philadelphia, Pa.

The Modern and Improved Hotel and Restaurant Appliance

D. BROGAN, Consolidated Gas Co. of New York, N. Y.

Dealer Cooperation

T. J. GALLAGHER, The Peoples Gas Light and Coke Co., Chicago, Ill.

#### MANUFACTURERS' SESSION

SUNDAY, OCTOBER 28

5 P.M.

Hotel Traymore

Address of Chairman

JOHN A. FRY, Detroit-Michigan Stove Co., Detroit, Mich.

Report of Nominating Committee

D. B. STOKES, United States Pipe & Foundry Co., Burlington, N. J.

Washington Activities

GEORGE W. BEAN, Washington, D. C.

New Business

Adjournment

#### GAS APPLIANCES INSTITUTE

(To convene immediately following adjournment of Manufacturers' Section meeting.)

Address of Chairman

JOHN A. FRY, Detroit-Michigan Stove Co., Detroit, Mich.

Report of Counsel

GEORGE E. FRAZER, Gas Appliances Institute, Chicago, Ill.

Report of Secretary and Treasurer

C. W. BERGHORN

Report of Chairman, Gas Range Institute

Charles Fuller Stoddard, owner and operator of Butler Hall, New York, will discuss "Restaurant, Hotel, Food Preparation and Control Devices" before the Hotel and



Charles F. Stoddard

Food Products Sales Symposium of the Industrial Gas Section at its meeting Wednesday, October 31.

Mr. Stoddard is the inventor of the pneumatic tubes which carry the United States mail in New York City. He is also the inventor of the Ampico piano and all of its automatic devices. This period of his life covered a space of twenty years.

For the past four years, he has been in the restaurant business, two years of which were devoted to studying conventional methods of cooking and the last two to the development of a new scientific method of cookery. He is widely known as an authority on up-to-date developments in the field of food preparation.

MARION P. ROPER, Geo. D. Roper Corp., Rockford, Ill.

**Report of Chairman, Gas Water Heater Institute**

W. T. RASCH, American Gas Products Corp., New York, N. Y.

**Report of Chairman, Gas Space Heater Institute**

CARL E. FROELICH, Continental Stove Co., Ironton, Ohio.

**Report of Chairman of Gas Boiler, Furnace & Conversion Burner Institute**

FRANK H. ADAMS, Surface Combustion Corp., Toledo, Ohio.

**Report of Chairman of Gas Apparatus and Accessories Institute**

DONALD McDONALD, American Meter Co., New York, N. Y.

**New Business**

**NATURAL GAS DEPARTMENT  
MONDAY, OCTOBER 29**

9:30 A.M.

*Ambassador Hotel*

**Annual Meeting Main Technical and Research Committee**

H. C. COOPER, *Chairman*, Hope Natural Gas Co., Pittsburgh, Pa.

11 A.M.

**ANNUAL MEETING, NATURAL GAS DEPARTMENT**

**Chairman's Address**

FRANK L. CHASE, Lone Star Gas Co., Dallas, Texas.

**Report of Main Technical and Research Committee**

H. C. COOPER, *Chairman*, Hope Natural Gas Co., Pittsburgh, Pa.



*Vice-President Young*

**Report of Nominating Committee and Election of Officers**

GEORGE W. RATCLIFFE, *Chairman*, Manufacturers' Light & Heat Co., Pittsburgh, Pa.

**Address—Standby Gas**

L. J. WILLIEN, Byllesby Engineering and Management Corp., Chicago, Ill.

**Announcements and Adjournment  
2 P.M.**

**Address—Compressor Station Problems**

BURT R. BAY, Panhandle Eastern Pipe Line Co., Kansas City, Mo.

**Natural Gas Fellowships**

JOHN B. TONKIN, Peoples Natural Gas Co., Pittsburgh, Pa.

**Internal Corrosion of Pipe Lines**

ELMER F. SCHMIDT, Lone Star Gas Co., Dallas, Texas.

**Reviewing the Developments and Economics in Electric Drainage of Natural Gas Pipe Lines**

A. F. BRIDGE, Southern Counties Gas Co., Los Angeles, Calif.

**Patrolling of Natural Gas Pipe Lines by-Airplane**

B. C. COMFORT, Mississippi River Fuel Co., St. Louis, Mo.

**The Commercial End of the Gas Business**

B. H. GARDNER, Columbia Gas and Electric Corp., Columbus, Ohio.

6:30 P.M.

**Annual Meeting and Dinner of the Executive, Managing and Advisory Committees**

**PUBLICITY AND ADVERTISING COMMITTEE**

LUNCHEON SYMPOSIUM  
THURSDAY, NOVEMBER 1  
1 P.M.

*Ambassador Hotel*

(Reservations must be made by 9 A.M., Nov. 1, at A. G. A. Registration Desk, Auditorium. Tickets \$1.25. All delegates to the Convention and all members of the Public Utilities Advertising Association in attendance are invited to this Symposium.)

**Advertising in Competition with Government Sponsored Business**

**Selling Industrial Gas by Direct Mail Advertising**

**National Advertising Sometime Versus Regional Advertising Now**

**Promotional Possibilities of the A. G. A. Laboratory Seal**

(Continued on page 371)

**Presiding Sectional and Departmental Officers**



F. L. Chase  
Natural Gas Dept.



E. B. Nutt  
Accounting Section



N. T. Sellman  
Commercial Sect.



O. S. Hagerman  
Technical Sect.



J. A. Fry  
Manufacturers' Sect.



F. B. Jones  
Industrial Gas Sect.

## Some of the Speakers Appearing On

*W. W. Winter**L. L. Dyer**L. J. Willien**C. A. Harrison**Lyle C. Harvey**E. R. Rotramel**F. J. Bischoff, Jr.**B. R. Bay**I. K. Peck**J. I. Blanchfield**Herbert E. Cliff**G. W. Ratcliffe**F. B. Parke**E. F. Schmidt**Louis Stoecker**H. M. Brundage**H. Obermeyer**Alexander Forward**C. E. Paige**A. S. Corson**C. W. Gale**W. G. Murfis**J. A. Perry**Dr. Scott Ewing**J. W. Mackie*



## the Atlantic City Convention Program

*J. F. Quinn**J. V. Postles**F. M. Banks**C. A. Luther**J. B. Jones**John B. Tonkin**John J. Natale**T. J. Gallagher**C. J. Fue**J. M. Kramarsik**W. H. Goforth**Ben C. Comfort**H. W. Battin**H. A. Sutton**E. N. Keller**R. A. Malony**E. F. Pobimann**W. S. Bowser**J. F. Weeks**L. A. Mayo**W. M. Hepburn**F. H. Trembly, Jr.**H. E. Dexter**S. H. Corson**Daniel J. Brogan*

# Steps Taken To Cooperate With Better Housing Program

**R** EPORTS from various sections of the country indicate that gas companies and appliance manufacturers are rapidly coming to realize the potentialities in the vast publicity and sales campaign being sponsored and financed by the Government to put across the better housing program inaugurated by the National Housing Act. Many companies are cooperating with the Federal Housing Administration directly and with local organizations in order to obtain the greatest benefit from this Act.

The American Gas Association has made every effort to keep its member companies advised of the steps in this program and, in some instances, has furnished copies of Government pamphlets which were of particular significance to gas companies and appliance manufacturers. A ruling by the deputy administrator of the Federal Housing Administration to the effect that "any equipment that is connected with gas piping, water piping or electric wiring may be included in loans insured by the Administration," was made in response to an inquiry by the Association.

## *Appliances Listed*

In this inquiry, the following gas appliances were listed as being available in the modernizing and renovation of homes and stores: gas ranges, water heaters, central heating boilers and furnaces, conversion burners for central heating, garage heaters, gas steam radiators, incinerators, laundry dryers, space heaters, including unit heaters, fireplace heaters of all types, and refrigerators. It was pointed out that in at least 90 per cent of the cases, these appliances are connected by pipe with rigid fittings and also that the appliance manufacturing industry has been defined as a capital goods industry.

At this writing, the Administration has distributed the following five pamphlets covering the various steps in

Information concerning the activities of other companies will be published in the A. G. A. Monthly as soon as details are available. The Association would like to be kept advised of the plans and progress of company members who are cooperating with the Housing Program.

the campaign: 1. How Owners of Homes and Business Property Can Secure the Benefit of the National Housing Act. 2. Community Campaign—How Your City Can Get the Greatest Benefit from the National Housing Act. 3. Architects, Contractors Building Supply and Other Merchants—Your Opportunity, Your Responsibility. 4. Bulletin for Manufacturers, Advertising Agencies and Publishers. 5. Community Planning.

Pamphlets listed under numbers one and three have been distributed by the Association to company members, as it was thought that they were of particular interest to gas companies. The other three pamphlets have been called to the attention of company members in special releases.

Additional bulletins issued by the Federal Housing Administration have outlined the modernization credit plan and covered information relating to credit insurance for the alteration, repair and improvement of real property. Other material released includes a portfolio of publicity for use of community campaign committees and an outline of procedure for cooperation with Federal Housing Administration. Any or all of the above-mentioned material may be had upon application to the Federal Housing Administration or from local agencies.

It is recommended that gas companies, who have not already done so, take steps to contact local headquarters organizations of the Better Housing Program and to cooperate in

every way possible to increase the sale of gas appliances in the home and store. Appliance manufacturers should be alert to see that the gas industry is well represented in the presentation of new and modern equipment.

The accompanying chart shows the lines along which the housing campaign is being organized locally. A study of this chart and of the pamphlets and bulletins which have been issued will reveal many ways in which companies can tie in with the program. The following excerpts from an outline of the work of the Building Industry and Consultation Committees should prove of interest:

## *Local Organization*

The Building Industry Committee "should be broadly representative of the manufacturers, dealers and distributors of building materials and equipment; and the builders, contractors, architects, building tradesmen and workers whose services or labor may be employed in the Better Housing Programs.

"The committee should arrange for the active cooperation of these interests in such ways as the tying in of their own newspaper, direct-mail or radio advertising with the general purpose of the Housing Program; donating the services of their salesmen or other employees as volunteer workers in the field canvass.

"This committee should supply the Consultation Committee with a list of dealers (by districts, if necessary) handling various types of materials and equipment so that these lists may be available to property owners who desire to make purchases; and with a list of architects, builders, contractors, and sub-contractors who are available for employment in making various types of repairs, alterations and improvements."

The importance to the gas industry of the Consultation Committee will be

readily understood from an outline of its function. It is to give free advice to property owners on the following:

1. Sources and approximate prices of building materials and equipment;
2. Names of qualified architects, contractors, and sub-contractors, available to do modernization or repair work;
3. General advice as to what types of alterations, repairs, and improvements are desirable and necessary;
4. Rough estimates of the cost of various types of work;
5. Names of financial institutions approved to make modernizing loans.

Intensive advertising and publicity, consisting of the use of newspapers, radio, outdoor advertising, street car posters, special exhibits, parades, contests, speakers' bureaus, moving pictures, etc., will be followed by a personal house-to-house or property-to-property canvass by a large force of volunteer workers. It is suggested that companies cooperate in this field campaign.

#### Potential Business

The Federal Housing Administration calls attention to the potential business offered by the Better Housing Program. In support of this contention, facts and figures are listed which are taken from a Better Homes Contest conducted in 1933 on a large scale by a leading national publication. Quoting from the results of this survey, the Administration points out that "in one city in Pennsylvania, for example, there were 8,459 houses investigated, and something over 6,000 of them were over 40 years old. Investigation disclosed:

- 2,541 with no tubs or showers;
- 684 with no electricity or gas;
- 1,062 with no indoor toilets, and
- 3,402 with no central heating plant."

Another example cited was of an Arkansas City, in which 25,000 houses were surveyed. The survey disclosed that 7,630 had no electricity or gas.

One feature of the drive will be the effort to promote kitchen modernization. In addition to advertising, feature stories are provided for women's pages designed to create a desire for new equipment and better arrangement. These articles are illustrated with photographs showing what trans-

formations modern equipment and careful planning can bring about in old kitchens. Other stories concentrate on the basement, illustrating how it can be made more attractive.

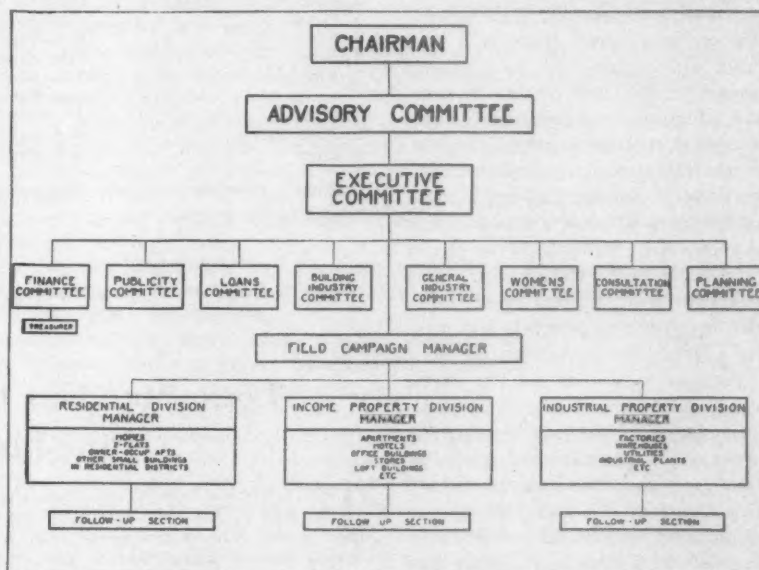
The American Gas Association will keep its members further informed of any new developments in this program, but it is urged that all interested companies maintain close contact with their local organizations. Any further information can be secured upon application to the Federal Housing Administration, Washington, D. C., which is prepared to afford every assistance in planning campaigns.

"1. All of our four hundred and twenty-five salesmen and a large part of our ten thousand employees have already been informed of the plan.

"2. About October 10th, we will distribute more than one-half million copies of a company publication which will carry a special article to our customers and approximately one hundred thousand stockholders.

"3. Special window displays will be used in all of our offices throughout the month of October.

"4. Through local organizations of gas and electric appliance dealers and



Typical organization chart for local Better Housing Campaign

A brief description of the activities of two large gas companies is included here. The Association has been advised of the participation of other companies in the Better Housing Program and this information will be published in THE MONTHLY as soon as details are available.

#### P. G. & E. Plans

In a telegram to James A. Moffett, Federal Housing Administrator, which was read before a meeting of manufacturers held at the Willard Hotel in Washington, D. C., September 12, A. F. Hockenbeamer, president of the Pacific Gas and Electric Company, presented the following outline of steps already taken or in process:

contractors, funds will be raised for special advertising in principal newspapers. Several meetings have already been held under the chairmanship of our general sales manager and we will undoubtedly secure the full cooperation of these groups."

#### Brooklyn Campaign

The campaign launched by The Brooklyn Union Gas Company is described as follows by Hugh H. Cathrell, manager of the new business department:

"What You Can Do with Your Property Modernization Loan" is the title of a four-page folder which The Brooklyn Union Gas Company has sent out to customers, dealers and em-



ployees in connection with the campaign started as a result of the National Housing Act. This advertising piece is being sent to one-family houses in our territory. In addition copies are at all cashiers' counters and on all sales floors so that persons who come in to pay their gas bills or inspect appliances can obtain them.

The circular informs the customer that gas appliances can be purchased with a Property Modernization Loan. It also suggests that the customer telephone the company should he or she want additional information.

These calls will be taken care of by employees who have been instructed in handling this matter. It is thought that in many cases these calls may result in valuable leads to appliance prospects. We will obtain the name and addresses of people who are interested in modernizing their property. If the information we receive appears worth while and there are gas burning appliances involved, the name, address and necessary information is turned over to the Sales Department. This makes for prompt action by our salesmen in getting to prospects and making a sale before competitors do so.

Previous to sending out the above-mentioned folder we sent to our dealers copies of the National Housing Act folder which was published jointly by *Time* and the *Architectural Forum*. This describes the background, provisions and possibilities of the Act. Together with it we sent a letter urging the dealers to see their customers and explain the National Housing Act with a view to obtaining gas appliance sales.

#### Survey

At the time the decision was given that gas appliances could be purchased under a National Housing Act Loan, we were completing a survey of the refrigeration and water heating equipment in the 274,947 one- and two-family homes in our territory.

This information was obtained by the company's meter readers who have entry to the customer's home and can thus obtain more accurate information than any other agent. In order not to interfere with the regular duties of these meter readers, they have been assigned only a limited number of

homes to survey each month. They are also compensated when a gas refrigerator or water heater is sold in a home which they have surveyed.

To collect this data printed forms were inserted in the meter reader's book. These forms contain the name and address of the customer as well as the type of home (one- or two-family). An initial designates in which of the branch districts the home is located. There is space for the meter reader to check the type of refrigeration or water heating equipment the

punch code to another form card. By means of the mechanical tabulating equipment, the second form cards are sorted by kind of appliance and the corresponding fuel and into various fuel combinations of the two types of equipment being surveyed.

There are nine of these various combinations. Each of these combinations has a different colored card, on which appears the name and address of the prospect, to facilitate salesmen and the advertising force to know at a glance the appliance equipment of the prospect. These divisions are as follows:

#### Prospect's Appliance

#### Color of Card

1. White
2. Canary
3. Goldenrod
4. Blue
5. Buff
6. Green
7. Cherry
8. Pink Salmon
9. Grey

- Coal Pot and Ice Box
- Coal Pot and Electric Refrigerator
- Coal Pot and Gas Refrigerator
- Side Arm Gas Water Heater and Ice Box
- Side Arm Gas Water Heater and Electric Refrigerator
- Side Arm Gas Water Heater and Gas Refrigerator
- Automatic Gas Water Heater and Ice Box
- Automatic Gas Water Heater and Electric Refrigerator
- Automatic Gas Water Heater and Gas Refrigerator

customer possesses. This report is signed by the indexer.

#### Prospect Cards

This information is transferred in

With this information we are now ready to invade our market in efforts to sell gas appliances financed by loans procured under the National Housing Act.

## Lone Star Gas Company Extends Pipe-Line System

**T**HE first major construction work undertaken by the Lone Star Gas Company in five years is now under way. A 70-mile line of welded 12-inch gas pipe will be laid across five counties from a point south of Waco into the gas fields in the proven area of Long Lake in Anderson county.

Representing an investment of almost a million dollars, the construction work will employ several hundreds of men. Survey on right-of-way for the line was started during August and the line will be completed about December 1, in time to assist in handling the increased load anticipated by gas company officials during the coming winter.

Work of building the line will be under the direction of Frank L. Chase, vice-president and operating manager of the Lone Star; and will be supervised by Elmer F. Schmidt, general superintendent, Julian L. Foster, chief engineer, R. Vandercook, superintendent of pipe lines, and Luther Tolbert, assistant superintendent of pipe lines.

The new line, which will tie into the Lone Star pipe-line system at two points, one just south of Waco and other near Groesbeck in Limestone county, will strengthen the gas supply for the towns on the southern end of the 4,000-mile system giving

the double protection of both West Texas and East Texas fields' supply to a group of cities including Waco, Temple, Bryan, Georgetown and Marlin.

Capacity of the line will be around 30,000,000 cubic feet a day. The Lone Star has gas purchase contracts in the Long Lake area of Anderson county which allows gas to be taken from the field at high pressure up to 500 pounds per square inch. No compressor stations will be necessary under prevailing rock pressure conditions in the field.

The line will run south of Texas, through McClellan, Falls, Limestone and Freestone counties into the southwest part of Anderson county. One of the outstanding engineering problems encountered during its construction will be a submerged crossing of the Trinity River just north of State Highway Bridge 43 west of Palestine.

All 12-inch pipe used in construction of the new line will be moved from other locations on the system, will be cleaned at concentration points, shipped to pipe-line locations and given a second cleaning after it has been welded and placed on skids over the ditch.



## Walter C. Beckjord Elected to Columbia Gas



W. C. Beckjord

**WALTER C. BECKJORD**, formerly vice-president and general manager of the Boston Consolidated Gas Company, has been elected to the recently created position of vice-president and general manager of the Columbia Gas and Electric Corporation, N. Y., it was an-

nounced September 11.

Four additional directors were elected to the Board: Mr. Beckjord, Edward Reynolds, Jr., the executive vice-president; C. I. Weaver, a vice-president, and Frank M. Tait, president of the Dayton Power and Light Company. The elections added three directors to the board, which now consists of twenty-one members, and filled the vacancy caused by the resignation several months ago of Charles A. Munroe.

Mr. Beckjord was graduated in 1909 from the University of Minnesota, having worked during summer vacations as cadet engineer for the St. Paul Gas Light Co. After graduation he became construction engineer for the St. Paul utility, and left in 1916 to become assistant engineer for the American Light & Traction Co. In 1922 he was elected vice-president and chief engineer of the latter company. He became vice-president and general manager of the Boston Consolidated Gas Company in 1929.

Mr. Beckjord is a director of the American Gas Association, has served two terms as chairman of the Technical Section, and one term as chairman of the Commercial Section.

## Public Service Appointments

**A**NNOUNCEMENT has been made by Vice-President John A. Clark, in charge of gas operation, Public Service Electric and Gas Co., Newark, N. J., of the appointment of James Ashworth, to be engineer of gas distribution of the Hudson Division, succeeding Eugene J. Donahue, who died August 6. Mr. Ashworth was assistant engineer of distribution in that division.

The following other appointments in the Hudson Division gas department were announced by Mr. Clark:

Martin J. White to succeed Mr. Ashworth as assistant engineer of distribution, Hudson Division. Mr. White was superintendent of distribution, North Hudson District.

Juan A. Babcock, who was assistant to the engineer of distribution, Hudson Division, to be superintendent of distribution, Jersey City and Bayonne Districts.

Einer W. Rasmussen to be superintendent of the North Hudson and Hoboken Dis-

## PHYSICIAN TO THE GAS INDUSTRY

By **JACOB B. JONES**, Superintendent  
The Bridgeton Gas Light Co., Bridgeton, N. J.

It would be quite impossible to say in mere words just what the Association means, or should mean, to every gas company. For ourselves, we regard it very much the same as we do our relations with our own personal physician.

We know that his services are there when we require them, but hope that we shall not need him. To more fully explain, we have had for many years an arrangement with our physician, whereby he takes care of the entire family for a certain sum, regardless of the number of visits that we may make, or the times that he may be called to the house.

We pay him to keep us well, and he does that by insisting upon the family coming to his office at certain times during the year for a complete physical examination. What we are trying to say is that his services are there when we need them.

This is what I think the American Gas Association does for the industry. First, it is the national body and the representative of the gas industry, and speaks for it as a whole.

As to getting your money's worth, that seems to me to be the least consideration. The fact that the Association issues an Information Service covering concise subjects of interest to gas companies is one of the important features. The regular issue of *The Monthly* keeps us in touch with activities in every department of the gas industry, and makes us feel acquainted with them.

We have found the A. G. A. Rate Service to be invaluable as a reference, and the Monthly Summary of Gas Company Statistics helps us to keep a check on ourselves.

There are so many things that the Association does for its member companies that a recital of them would look something like a form sheet at the races, and I am not going to undertake to go to this length. However, I have saved to the last what we consider to be one of the greatest activities of the Association, and that is the Annual Convention, where we are privileged to learn of the latest developments within the industry, and once more to have the educational benefits of an Exhibition.

We live almost next door to Atlantic City, and have always taken a large delegation of our men to visit the Exhibition and attend the Convention sessions. That alone provides enough inspiration to more than pay us in return for all that we contribute to the Association in the way of dues.

An association is only as strong as its members care to make it, and to my mind every gas company should be enrolled and every gas company employee, whether an executive or occupying a position as a worker in the ranks, should consider the American Gas Association to be their association.

tricts. Mr. Rasmussen was assistant to the engineer, Passaic Division.

Mr. Clark also announced the appointment of Wilmer K. Allebach to be superintendent and Percy H. Winch, assistant superintendent of the Camden Coke plant of the company.

## Presents Paper on Immersion Heating

At the annual convention of the Association of Iron & Steel Electrical Engineers held in Cleveland, Ohio, September 18-20,

Elmer B. Dunkak, vice-president of the C. M. Kemp Mfg. Co., presented a paper entitled "Theory and Practice of Immersion Heating with Gaseous Fuels."

Mr. Dunkak presented seven advantages that immersion heating possesses over external methods commonly in use. He also gave four concrete examples where immersion heating had proved a distinct improvement in different industries.

Concluding his address, Mr. Dunkak said: "Looking into the future of immersion heating, I see new fields to conquer, a wide range of usefulness. Hot galvanizing and steel finishing in general I regard as the next important fields."

## New Technical Bulletin by Industrial Research Committee

**I**N connection with Project No. 26, Research in the Effect of Operating Temperatures on the Combustion of Industrial Gas, the Committee on Industrial Gas Research, F. J. Rutledge, chairman, has just published a bulletin giving the results of an extensive study of the effect of furnace wall temperatures on the combustion of industrial gas. This bulletin, which was prepared by the American Gas Association Testing Laboratory, as a result of its original investigations into the subject, supplements Bulletin No. 723 published last Fall entitled "Research in Fundamentals of Combustion Space Requirements in High Temperature Gas Furnaces."

The data secured during this research and recorded in the new bulletin collaborates in a general way the preliminary results reported in the previous bulletin. In addition, considerable information heretofore unknown and of practical value was secured concerning the effect of combustion chamber wall temperatures on the combustion of gas under varying conditions.

An important result incidental to the main study was the development and adoption of a precise means for the determination of high flue gas temperatures by means of the spectral-line reversal method. In this work the Laboratory was fortunate in having the valued assistance of the Pittsburgh Experiment Station of the U. S. Bureau of Mines and Lamp Research Laboratory of the General Electric Company. Results are reported not only on refractory-lined walls but water-cooled walls as well.

Authentic data are presented which show the practicability of releasing B.t.u.'s in limited combustion spaces that are considerably higher than any that have yet been practiced in commercial installations. These data should be valuable to engineers concerned with designing gas installations for large power boilers as well as gas applications for industrial furnaces of both large and small capacities.

From the purely scientific view the bulletin assumes importance not only from the standpoint of the data reported but also since procedures developed will materially aid investigators in the field of combustion in their work in the future.

### Brewer Re-elected

**O.**W. BREWER, auditor of the American Gas Association, was re-elected treasurer of the Controllers Institute of America at the recent meeting of the institute in New York.



F. J. Rutledge

## : Additions to the Family :

The following companies and individuals have joined the American Gas Association between May 1, 1934 and September 15, 1934:

### GAS COMPANIES

#### Delegates

Palestine Light & Heat Company, Palestine, Texas.....J. V. W. Murdough, manager  
El Paso Natural Gas Company, El Paso, Texas.....C. C. Cragin, vice-pres.  
Empire Southern Gas Company, Fort Worth, Texas.....F. H. Coughlin, general manager  
River Valley Gas Company, Paris, Ark.....Wyley Elliott, manager  
Tyler Gas Service Company, Tyler, Texas.....C. L. Burger, manager  
Burk Burnett Gas Company, Burk Burnett, Texas.....R. J. Kelly, manager  
Rio Grande Valley Gas Co., Brownsville, Texas.....R. B. Lloyd, vice-pres. and general manager

### MANUFACTURER COMPANIES

#### Delegates

Walter M. Berry, Los Angeles, Calif.....Walter M. Berry  
Watts Regulator Company, Lawrence, Mass.....B. E. Horne, proprietor  
General Electric Company, New York, N. Y.....J. J. Donovan, manager  
Fagan Andrews Company, Milwaukee, Wis.....J. P. Fagan, secretary and treasurer  
Modern Diaphragm Company, Brooklyn, N. Y.....John J. Greco, manager  
Inner-Tite Clamp Corporation, Elizabeth, N. J.....G. M. Kilcarr, manager  
Supreme Heater Company, Cleveland, Ohio.....David Miller, president

### ASSOCIATE COMPANY

#### Delegates

Fenton Kelsey Company, Chicago, Ill.....Fenton Kelsey, president  
Ketchum, MacLeod & Grove, Inc., Pittsburgh, Pa.....George W. Ketchum, president

### INDIVIDUAL MEMBERS

Anderson, Walter S.....Boston Consolidated Gas Co., Boston, Mass.  
Baxter, Robert A.....Colorado School of Mines, Golden, Colo.  
Bushfield, Frank T.....The Long Island Lighting Co., New York, N. Y.  
Conover, V. William.....The Philadelphia Gas Works Co., Philadelphia, Pa.  
Corson, Samuel H.....Philadelphia Electric Co., Jenkintown, Pa.  
Gribbel, W. Griffin.....Mermaid & St. Martins Lanes, Philadelphia, Pa.  
Griffoul, Richard G.....Consolidated Gas Co. of N. Y., New York, N. Y.  
Hickey, Thomas J.....Marlborough-Hudson Gas Co., Marlborough, Mass.  
Kerr, A. D.....United Gas Public Service Co., Houston, Texas  
Luebke, Raphael B.....Stacey Bros. Gas Construction Co., Cincinnati, Ohio  
Morton, John William.....Ternstedt Manufacturing Co., Detroit, Mich.  
Nairne, Clayton L.....New Orleans Public Service Inc., New Orleans, La.  
Ruppel, John.....Acme Radiant Company, Philadelphia, Pa.  
Russell, William Ellsworth.....Consd. Gas Elec. Lt. & Pwr. Co., Baltimore, Md.  
Seligman, Felix.....City of Duluth Water & Light Dept., Duluth, Minn.  
Skelton, Arthur.....The Peoples Gas Light & Coke Co., Chicago, Ill.  
Stauffer, Grant.....Stauffer Publications, Inc., Kansas City, Mo.  
Strait, Edward N.....Byllesby Engrg. & Management Corp., Chicago, Ill.  
Tatum, Will S.....The Weldmech Steel Products Co., Hattiesburg, Miss.  
Thuerk, Hugh Campbell.....The Utility Management Corp., New York, N. Y.  
Vaughan, Victor Graves.....Spencer Thermostat Company, Attleboro, Mass.  
Wiedenbeck, Harry J.....Chicago By-Product Coke Co., Chicago, Ill.  
Yost, Charles L.....United American Bosch Corp., Pittsburgh, Pa.  
Zeisler, Paul B.....Sydney Stein Jr. & Associates, Chicago, Ill.

### FOREIGN INDIVIDUAL MEMBERS

#### England

Holliday, George Craven.....The Gas Light & Coke Co., London, England  
Lowman, Russell W.....The Gas Light & Coke Co., London, England  
Oliver, William Robert.....British Commercial Gas Assn., London, England  
Ryan, Alfred Patrick.....The Gas Light & Coke Co., London, England

#### Cuba

Victory, Thornton.....Compania Cubana de Electricidad, Havana, Cuba

#### Japan

Hada, Seisi.....Toho Gas Company, Nagoya City, Japan  
Ito, K.....Tokyo Gas Company, Ltd., Tokyo, Japan  
Mori, Hisashi.....Keihin Coke Co., Yokohama, Japan  
Ohno, Jiro.....Tokyo Gas Company, Ltd., Tokyo, Japan

# The New Natural Gas Course—How and Why It Was Prepared



C. M. Young

THE preparation of the text for the course on Natural Gas has been a work of cooperation. It was undertaken at the request of the Natural Gas Department of the American Gas Association and

throughout the work the Association and all individuals consulted have given every possible assistance, even when this required hours of the time of busy men. The text carries my name, but it really ought to carry many more.

The initiation of the work was entirely with the Association. The growth of the use of natural gas had aroused so much interest that those most closely in touch with conditions felt that the time had come for some educational opportunity for men who could not attend a school. As far as The University of Kansas is concerned, our first knowledge of the desire for such a course was a letter asking whether we were equipped for such work and cared to consider it.

## Initial Steps

This was followed by a visit from Keith Clevenger, then connected with the Association, E. J. Stephany, then secretary of the Natural Gas Department, and F. M. Rosenkrans, of the Gas Service Company, who acted as their host. After this visit, we were formally requested to prepare and administer the course, the text to be supplied by me, the publication to be made by the Extension Division, Harold G. Ingham, director, and the lessons to be handled by that division with my help. This was longer ago than I like to think.

At first we looked over the ground and estimated the time needed, and then doubled it in order to set the date for offering the course for enrollments. But there were many un-

By C. M. YOUNG  
Professor of Mining Engineering,  
University of Kansas, Lawrence, Kans.

foreseen and regrettable delays, and we practically had to double the time again. It would have been possible to announce the course some months before the present time, but it seemed inadvisable to do so.

## Advisory Committee

An Advisory Committee was appointed by the Association to make suggestions, to check statements and policies, and to have general oversight. This consisted of:

F. L. Chase, vice-president, Lone Star Gas Co., Dallas, Texas; J. D. Creveling, Henry L. Doherty & Co., New York, N. Y.; Dr. J. B. Garner, Hope and Affiliated Natural Gas Companies, Pittsburgh, Pa., and A. B. Macbeth, president, Southern California Gas Co., Los Angeles, Calif.

They were told that their action would be the action of the American Gas Association. The character and ability of these men suggested that no major errors could escape detection. But, whenever it seemed desirable, other eminent men were consulted. Not only did the author ask for help, but, in several instances, portions of the manuscript were sent by the officers of the Association to men who seemed best qualified to review them. Absence of errors is altogether too much to hope in a first printing, but such errors as will be found have passed the scrutiny of some very keen men.

In addition to some care in checking statements, there has been an attempt to get the most accurate figures where figures were used. Two or three examples will illustrate this. One of the tables gives the chemical analyses of gases from different fields. Some of these were obtained from papers already published, but most of them came in answer to inquiries for analyses from different fields. Sometimes an analysis received in this way did

not look reasonable. Any such question was settled by further correspondence or by the use of material from another source. The result is a table of gases which is as accurate as present-day data permit.

Again, there was need for the latest word on the properties of the gaseous hydrocarbons, and naturally Dr. Garner was consulted. He supplied a table which contains the most authoritative figures. There was need also for the best figures available on the open flow measurement of wells and permission was obtained from Walter Reid to use his tables. Again, the latest data on the velocity of flame were supplied by the Research Laboratory of the Association.

I went to the U. S. Bureau of Mines for figures on many subjects and for much other help. The result of this method is the collection of figures and of statements of fact which are recent and as accurate as it is possible to get them. It seems not unreasonable to believe that they will be of use to others than the students taking the course, and the students can be reasonably sure that they are getting reliable material.

To return to the personnel of this committee, it can be seen that the members represent the whole geographical extent of the industry in the United States, and also its extent in function from operation to research.

## Text Preparation

In the actual preparation of the text, the first step was determination of the character that it should have; and this depended largely on the type of man for whom it was intended. The final decision was to try to write it for the man with at least a high school education and with some experience in at least one phase of the industry. Whether this has been done successfully we do not know, and shall not until we get the reaction of students; Personally, I fear that it is somewhat



difficult; yet most of the suggestions of the Advisory Committee, when manuscript was submitted for criticism, were for more expansion rather than for elimination. Certainly it will not all be easy reading, but we believe that it can be understood by those for whom it was prepared.

The second step was the planning of an outline and a good deal of thought was given to this. It was submitted to the Advisory Committee and also was sent by Kurwin R. Boyes, secretary of the Association, to other men for suggestions. It was checked over thoroughly and Dr. Garner, of the Advisory Committee, H. D. Hancock, of Henry L. Doherty & Co., and C. E. Gallagher, of The East Ohio Gas Co., prepared independent outlines. This preliminary planning was of very great value, even though it proved impractical, in the end, to follow the detailed schedule of lessons; but better to take the suggestion of Dr. Millikan, of the California Institute of Technology, to whom it was submitted by Mr. Macbeth, and let the text develop as seemed natural.

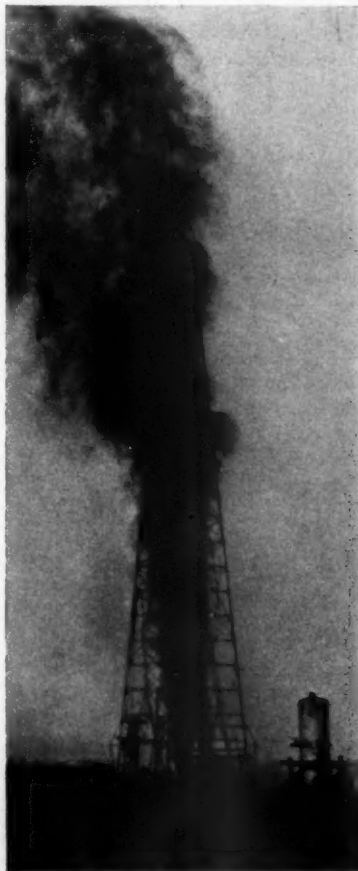
It was thought at the beginning that part of the work of preparation could be done by Prof. R. S. Tait on the subjects of production and transportation, and by Prof. H. C. Allen on chemistry and combustion, both excellently equipped for the task. Both of these men helped, but the experience in collecting material and writing the text showed that it would have to be largely the work of one person.

#### *Search for Material*

The text had to be a new thing, not only because of the use to which it was to be put, but because there was nothing suitable already in existence. Every part of the subject had been written about, but nowhere collected into a whole. Only two books carried natural gas titles. These were Lichty's, "Natural Gas," and Diehl's, "Natural Gas Handbook." But the former was concerned almost entirely with compression and transportation, and the latter was a handbook for the engineer.

There was also J. J. Morgan's, "Manufactured Gas," which had been prepared for a use similar to ours. But this, though it dealt with some of

the same subjects, was a book on manufactured gas and we wanted one on natural gas. It is true that there are many similarities, but also there are many differences; so many, in fact, that it was felt that an entirely separate text was needed. So it was necessary to plan the writing of a text which would cover, to some extent at least, the whole of natural gas technology, and to plan it for a particular use.



*The wild Mary Suddik in the Oklahoma City field*

As to the actual writing, the procedure was to take up a subject and study it over to see what I already knew about it. This was never enough, but it helped. Then the literature was examined and card indexed. Then everything that seemed valuable and was not a duplication was abstracted. Of course there were limits to this, for there was no possibility of using everything that had been written.

This resulted in a mass of material; sometimes four or five times as much as could possibly be used. This was all studied and then a discussion of the particular subject in hand was put onto a dictating machine. After this dictated material had been studied, it was revised and generally condensed. If this writing was satisfactory, the manuscript was sent to the Advisory Committee, to Mr. Boyes and to Mr. Stephany, who was then secretary of the Natural Gas Department, and later to A. E. Higgins, the present secretary.

Different members of the Advisory Committee gave different treatment to different parts of the text. A part might be returned with a general approval, or it might have been so thoroughly examined that even the use of commas was revised.

#### *Policy Changes*

In some cases a change of policy was advised or a new policy was initiated. Whatever the criticism, an effort was made to satisfy it except in the rare case of disagreement in the criticisms, when the author had to use his own judgment or ask for other advice.

One illustration of the action taken with regard to policy is the elimination of all statements of costs, the general opinion being that these differ so much from place to place and from time to time that it would be best to omit all statements concerning them. In fact, though many figures are given in the text, it is not a handbook.

Two other illustrations of action on policy are found in the replacement of *transmission* by *transportation*; and in the adoption of *margin of safety* instead of *factor of safety* in pipe line calculations. The latter is a change of some importance, involving a change in figures and also a change in concept. The old method says that a pipe is so many times as strong as it needs to be to stand the expected load. The new one says that there are so many thousands of pounds of unused but available strength. The latter idea seems to give a more faithful picture of conditions than the former.

Thus the text of this course has sometimes been used to express a policy of the American Gas Association de-





*Scene from the laying of the Magnolia gas line*

terminated by its authorized representatives.

Whenever serious changes were required, the manuscript was submitted a second time for approval.

#### *Outside Assistance*

In some cases the examination was made, not by the member of the committee, but by someone else associated with him. I am glad to have been brought into contact in this way with Wm. Moeller, Jr., of the Southern California Gas Co., E. F. Schmidt of the Lone Star Gas Co., H. C. Cooper of the Hope Natural Gas Co., and H. D. Hancock of Henry L. Doherty and Co. Some of the most valuable help has come from these men.

But there was no limiting of this help to men connected with the committee. For illustration, I asked Mr. Stephany something about measurement and he sent me a discussion by D. A. Sillers, which had been checked by John C. Diehl. Then I not only had the help I wanted, but I had an authoritative statement. Wherever possible I have tried to acknowledge such help, but there have been so many instances of it that some have probably been missed.

Something ought to be said about manufacturers of equipment. I asked

many of them for help. It was always given freely and abundantly. I could not ask for more generous cooperation.

I want Mr. Boyes, secretary of the Association, to have a paragraph to himself. He has been interested from the start; as an officer of the Association he has done everything possible to help, and in addition I have felt always that he had a sincere personal interest in it.

Also the magazines connected with

the industry did all that they could. And a word of gratitude should go to the Pacific Coast Gas Association.

Numerous quotations were made from "Combustion," a recent and most excellent publication of the A. G. A.

These things are not written with the idea of getting the thanks onto paper, but with that of showing the breadth of interest in the course and the character of the help given to it. It belongs to the whole natural gas industry.

#### *Manner of Handling*

As to the manner of handling the course: Each assignment carries a set of questions. Generally they look easy, but we think that they will show whether the student has really mastered the assignment. If he has not, we expect to help him by finding out the difficulty and helping to remove it. At first this will be done by the writer, but probably there will soon be too much work for one person. The author means to keep in close touch with all of the work and to be responsible for it.

A few words should be added on the financial arrangements. The American Gas Association is not concerned in any way, this matter being entirely in the hands of the University. The Association has fathered the course, given every help that was asked for and volunteered more, but it has no financial interest.

(Continued on page 371)



*Compressor station*

# Gas Companies in TVA Area Engaged in Vigorous Selling Campaigns

**A** REVIEW of current advertising used by some of the gas companies situated in the Tennessee Valley gives several interesting sidelights on the contest that is being waged there. Companies situated at Atlanta, Georgia, Chattanooga, Knoxville and Nashville, Tennessee, and at Amory and Tupelo, Mississippi, are bending every effort to maintain their business in the face of a Federal sponsored competition of unprecedented proportions.

With the aid of a liberal and intelligent use of advertising media, including newspaper space, direct-mail, bill poster, radio, car cards and other supplementary forms, the gas companies in the above-named cities are at present engaged in the most intensive selling campaigns they have ever utilized. Fortunately, some of these campaigns were inaugurated even before the TVA and EHFA became realities, and where this was done some notable progress was made in certain localities. With the advent of the Government's appliance selling activities, however, a competitive situation has arisen which has called for the exercise of the keenest advertising and merchandising talent by gas men.

Into the contest have been mobilized the employees of gas companies and plumbers, department stores and other dealers who sell appliances. Easy-payment plans and the economy and efficiency of gas service are the points most strongly featured in gas company advertising, and many of the advertisements carry the names of dealers or are sponsored by the dealers themselves.

## Atlanta

When the TVA was in the initial stage, the Atlanta Gas Light Company started the first of a number of appliance selling campaigns featuring gas ranges, for \$1.25 down and \$1.25 a month. This, the company stated, "is the most astounding offer in our history of merchandising in Atlanta." In its advertising the company stressed

the fact that "southern women prefer gas because gas-cooked foods have that fine, rich flavor familiar with southern cooking." Also prominently displayed in newspaper advertising space was the following: "Down through the years gas has remained the modern fuel. No satisfactory substitute has ever been found for it. It is perfectly adaptable to any kind of cooking. Its economy, cleanliness, multitude of speeds and utter dependability have kept it always the ideal fuel. Natural gas, nature's ideal fuel, due to its much higher heat content, is even more efficient and economical."

## Annual Old Stove Round-Up

The same company later sponsored its Sixth Annual Old Stove Round-Up, with trade-in allowance ranging up to \$13.50, and terms as low as \$1.50 down and \$1.50 a month. All through the advertising the latest developments in gas range design were played up. Later, the company announced its rental plan for water heaters, at \$1.25 down and \$1.25 a month. Employees of the company and dealers entered these campaigns with vigor and the results have been announced as highly satisfactory.

The Knoxville Gas Company, using large newspaper space and supplementing it with other forms of advertising, recently conducted a successful refrigerator campaign.

"The most vital part of an automatic refrigerator is the power that runs it," the company's newspaper advertisements declared. "The simpler and more efficient this power, the better the refrigerator."

Units were offered for sale with no down payment and with easy terms as low as fifteen cents a day. In late August, the company used large newspaper advertisements announcing its range rental campaign. One series of advertisements carried the heading, "The biggest nickel in Knoxville." The plan as announced in the body of the text read: "We install the range free. You pay only \$1.50 monthly

# This Service

under the

## RENTAL PLAN



**HERE'S THE PLAN:** One Dollar and Twenty-Five Cents Down and One Dollar and Twenty-Five Cents a Month will install an automatic gas water heater in your home and **PAY THE RENT** while your household enjoys the luxury of constant, dependable hot water service.

If you keep the heater until the rent you have paid amounts to its purchase price, it becomes your property.

Call J.A. 5101 for further information, or ask your favorite plumber.



**ATLANTA GAS LIGHT COMPANY.**  
By *W.H. Miller* Vice President and *J.A. 5101* General Manager  
West End East Point North's Decatur Marietta

The Atlanta company is offering ranges and water heaters at \$1.25 each a month under its rental plan



## 5 CENTS A DAY RENTS THIS *Magic Chef* —And Buys It Too

You don't have to BUY a modern gas range to enjoy its many advantages—we will RENT you a new Magic Chef for only 5c a day—We install it free. You only pay \$1.50 a month rental. If you use the range until the rent you have paid amounts to \$66.00, it becomes your property. Your complete satisfaction is guaranteed by our agreement to bring back the range and stop the rent any day you say so.

Despite millions spent in attempts to perfect other methods of cooking, the simplicity, speed, instant response, cleanliness and economy of the modern GAS range has never been equalled.

Come in today and see this beautiful 1934 Magic Chef Range. Or phone us for full details of the easy rental plan.

Modern GAS cooking is extremely economical.

This Magic Chef has the famous RED WHEEL oven heat control—full insulation—smokeless, slide-out broiler—automatic lighting—four full size "boll-over" proof top burners—porcelain enamel inside and out makes cleaning easy.

### The Knoxville GAS Co.

1111 SOUTH GAY STREET

*"The Biggest Nickel in Knoxville" is the gas company's answer to the Government's appliance selling campaign*

rental. If you use the range until the rent you have paid amounts to \$66 it becomes your property outright. If at any time you are not completely satisfied, you can terminate the service without further cost. This is the most sensational offer we have ever made." Later advertisements stated that "Despite millions spent in attempts to perfect other methods of cooking, the simplicity, speed, instant response, cleanliness and economy of the modern gas range has never been equalled." This campaign is still being conducted.

#### Nashville

The biggest single splash of advertising was that used by the Nashville Gas and Heating Company in eight pages of a special section in the Nashville Banner of August 5. On this occasion, the company announced its drastic reductions in gas rates, effective September 1, and dealers, including furniture, hardware stores, dry-goods establishments, and Montgomery Ward, carried advertisements in this special section featuring models of refrigerators, ranges and water heaters. Ranges were offered at \$49.50—\$1.65 per month, completely installed, with no installation charges. Other ranges were offered at higher prices,

all on easy term payment, and water heaters were offered at \$49.50. Refrigerators were offered for sale on terms of eleven cents a day.

In the Nashville Banner of August 26 the company made announcement of its water heater campaign in which a unit was offered for ninety-five cents down and \$1 a month, the price being \$19.95. In the Nashville Banner of September 2 and 4, dealers in Nashville again used large space in announcing a special gas range sale. In these advertisements the fact was emphasized that "In Nashville, as in the entire United States, more food is cooked on gas—the modern fuel—than that of all other fuels combined."

On September 2, the company announced that "nearly 500 Nashville housewives had modernized by changing to gas since the new low rates became available four weeks ago." On September 11, the company announced that a total of 659 housewives had changed to gas as a result of the new rates. Later advertising on gas ranges carried the headline, "Authorities on Economy Agree Gas Is the Most Efficient, Most Economical Fuel for Every Cooking Need." The picture of a housewife, chef, and a "Mammy" appeared in one of these advertisements.

They all testified to the fact that all those who desire savory, tasty foods, economically cooked, used a fast, flexible fuel. "No other fuel," the advertisement stated, "equals gas for giving just the right cooking temperature to bring to perfection the delicate flavors which are the delight of home cookery. She, too (Mammy), needs a fast fuel for quickly preparing the frequent lunches at the big house."

#### Memphis

Current advertising by the Memphis Power & Light Company is devoted to central house heating, a comprehensively planned campaign on space heaters called the Chill Chaser Campaign, in which the following companies, in addition to Memphis, are participating: The Mississippi Power and Light Company, Arkansas Power and Light Company, Louisiana Power and Light Company, United Gas System, and West Tennessee Power and Light Company.

In the former campaign, that devoted to central house heating, the Memphis company directs its newspaper and direct-mail advertising to homes where the company's survey showed oil burning heating appliances in use. In this advertising, customers were told that they are entitled to a complete heating survey of



*"Nat" and "Elec," the twin buddies of the Memphis company*

their homes without any cost or obligation. In the direct-mail advertising, letter No. 1 of the series ended with "With these facts before you, you can calmly decide what to do when the time comes to replace your oil burner, whether that be this winter or some future winter."

All of the direct-mail advertising carried this announcement. "Mem-



phians are fortunate in having combined gas and electric service. Whenever direct heat is needed, gas is convenient and economical. It is the ideal fuel for cooking, water heating and house heating. Electricity is surprisingly cheap in supplying energy for operating appliances that have motors such as fans, washing machines, vacuum cleaners, etc. It is the modern, efficient agency for lighting, and affords unequaled convenience for use in small appliances such as toasters, irons, etc. These services are available to you at the turn of a valve or snap of a switch during 24 hours of every day. Their combined use affords the most economical home service."

Another direct-mail folder is entitled, "What Your Neighbors Say About Gas Heating." This was mailed to all residences in Memphis where a survey showed there is a central heating plant, but where other fuel than gas is used. In the newspaper advertising directly below the company's name appears this statement:

"Electricity used for lighting and appliance operation; and natural gas used for cooking, water heating and house heating in the homes in Memphis cost our customers less than electricity used alone for the same purposes under any known electric rate."

#### Space Heater Campaign

The company's space heater campaign, which got under way September 17 and continues until November 17, is complete in every detail, including the effective use of newspaper space, two direct-mail pieces, dealer prospectus outlining the campaign, outdoor boards, street car cards and tire covers. The space heating unit sells for \$9.95, plus installation. The terms for the period of the sale are ninety-five cents down and the balance in nine equal monthly payments.

All of the companies mentioned above, under the management of the Electric Bond and Share Company, are cooperating in this campaign.

In addition to the foregoing media, they are also using screen advertising in motion picture houses, and the Memphis company is using radio announcements following the singing of a popular tune, the wording of which is adapted to natural gas for heating. The popular tune gets off to a fast start with "You Need a Little Chill Chaser in Your Home This Winter."

In connection with all of its newspaper advertising in this Chill Chaser Campaign, the Memphis company uses the following announcement: "Whenever direct heat is needed, gas is the cleaner, cheaper, better fuel. Natural gas is nature's finest fuel. Its great reservoirs throughout our Southland make natural gas one of the South's great natural resources. At the low price of which we distribute this fine fuel, it is truly economical. In the home you will find it best and cheapest, considering all of its advantages, for cooking, water heating, house heating."

#### TVA Results

In the meantime, while the gas companies in the Tennessee area are putting up a well-fought battle, correspondents of some newspapers state that the slowing down in the sale of electrical appliances has about convinced the Tennessee Valley Authority that its activities in the sale of approved TVA models, financed by the EHFA, must be extended nation-wide in order to obtain expected results. One of the obstacles unexpected, the newspapers state, is the success of a sudden drive by gas companies to make the home "all gas" instead of "all electric." Another is the unexpected liking which housewives are showing for the higher priced models in preference to the TVA approved models. In many instances, the newspapers say, customers have found it as easy to finance through their local dealers as with the TVA.

In its September 1st issue, *Advertising Age* says, "Now that sales of the TVA have fallen off, dealers contend there is no overwhelming public demand for this merchandise, that the price is too high for value received, and that refrigerator prospects realize this fact. Dealers point out that for about \$100 they can offer a conventional type refrigerator with much



—You Need A Little Chill Chaser in Your Home

*Chill Chaser space heater advertising inaugurated September 17 by Memphis Power and Light, Mississippi Power and Light, Arkansas Power and Light, Louisiana Power and Light, West Tennessee Power and Light and United Gas System*

more storage space and most customers are willing to pay the difference."

The *New York Herald Tribune*, in announcing that sales of gas ranges by the industry for the first six months of this year totaled 425,000, an increase of 42 per cent over the same 1933 period, says that the increase has been partly due to an aggressive campaign by the industry. Continuing, it declares: "The drive which the gas industry is making to increase the sale and use of household gas appliances is meeting with a great deal of success, with indications that gas sales will show more than a normal seasonal increase in the coming months. The industry opened the sales campaign to offset any inroads which the sale of electric ranges would make in the cooking load. Gas officials were convinced that the new modern gas appliances with many automatic features were as attractive as the electric range and refrigerator and could be sold on a competitive basis. The fact that the gas industry gained 360,000 customers during the first six months this year indicates that it is out to get its share of the utility business."

### New Water Heater Manual Available

LAST month the AMERICAN GAS ASSOCIATION MONTHLY announced the availability of a new Water Heater Manual, which is the second volume in the series of gas appliance service manuals now in course of preparation.

The new Water Heater Manual is similar in form and general treatment to the Range Manual, of which more than 7000 copies are already in use. Important new features have been added to the Water Heater Manual, so that it covers not only the installation and servicing, but also gives considerable sales information which would be valuable to home service departments, water heater salesmen and plumber dealers.

The main purpose of the book has not been lost sight of, and 130 pages, specially prepared with some 80 detailed, labeled drawings, cover the adjustment and servicing of all of the popular makes of water heaters and controls.

As an example of its usefulness, one large gas company has given cadets the book to read, and then sent them to service water heaters of an unfamiliar type. The results were conclusive proof of the practical value of the book.

Orders can be filled immediately and the American Gas Association announces that this book is available at \$1.00 per copy.

### A. G. A. Scholarship is Awarded



A. Katz

THE faculty of Purdue University has selected A. Katz as the recipient of the American Gas Association Scholarship for 1934-35, according to an announcement by the Dean of Engineering, A. A. Potter.

Since graduating from Purdue University in 1931, Mr. Katz has been employed with the United Light and Power Engineering Company of Davenport, Iowa. He is interested in gas technology and is returning to Purdue University this year in order to complete the requirements for a master's degree. It is expected that Mr. Katz will work with Professor R. B. Leckie on some research problem of value to the gas industry.

The scholarship at Purdue University, as well as one at The Johns Hopkins University, is maintained from the income of the Trustees Gas Educational Fund which was turned over to the custody of the American Gas Association some years ago with the understanding that it would be used for educational purposes. When the question arose as to whether these scholarships should be continued this year the Executive Board of the Association appointed A. E. Forstall, E. B. Luce, and E. C. Uhlig as a committee with power to act in the matter. The committee agreed that the scholarships at Purdue University and The Johns Hopkins University should be continued for the 1934-35 year.

The selection of the recipient of each is made by the faculty of the respective institution. It is expected that the holder of the scholarship at the Baltimore institution will be announced shortly.

The following material is covered:

#### Types and Sizes of Water Heaters

- Estimating Hot Water
- Manual Water Heaters
  - Copper and Alloy Tanks
  - Corrosion of Galvanized Steel Storage Tanks
  - Causes of Corrosion
  - Upstairs Controls
  - Conversion Units
- Automatic Water Heaters
  - Slow Recovery Heaters
  - Adjustable Recovery Heaters
  - Quick Recovery Heaters
  - Instantaneous Water Heaters
  - Multicoil Water Heaters
  - Other Large Volume Water Heaters
- Coal, Oil and Electric Water Heaters
  - Coal Fired Water Heaters
  - Oil Fired Water Heaters
  - Electric Water Heaters

#### Installation of Water Heaters

- Location
  - Automatic Storage Heaters
  - Instantaneous Water Heaters
  - Manual Water Heaters
- Methods of Hooking Up Water Heaters
  - Pressure Relief Valves
  - Temperature Relief Valves
  - Emergency Gas Shut-Offs
  - Gas Piping
  - Water Valves
  - Water Piping
  - Chimney Flues and Vents
  - Tempering Tanks
  - Insulation of Hot Water Lines and Tanks
  - Heat Traps
  - Leakage By-pass
- Instructions to Customer
  - Saving Gas
  - Gas Saving Attachments

#### Servicing of Water Heaters

- Burner Adjustment
  - Heaters with Fixed Orifices
  - Heaters with Adjustable Orifices
- Manual Side Arm Heaters
- Slow Recovery Heaters
  - Built-in Safety Pilot
- Quick Recovery Heaters
- Adjustable Recovery Heaters
- Instantaneous Heaters
- Multicoil Heaters
- Other Large Volume Water Heaters
- Thermostats
  - Snap Acting Thermostats
  - Quick Acting Thermostats
  - Throttling Thermostats
- Adjustment
- Safety Pilots
- Relief Valves and Emergency Shutoffs
- Elimination of Excessive Draft
- Trouble Shooting
  - High Bill Complaints
  - Water Heats Too Slowly
  - Water Not Hot Enough
  - Water Is Too Hot
  - Leaks in Coils
  - Burner Troubles
  - Thermostat Troubles
  - Safety Pilot Troubles
  - Temperature and Pressure Relief Valve Trouble
- Repair and Replacement of Mechanical Parts

#### Specific Servicing Instructions for the Common Types of Water Heaters and Controls

- Manufacturers of Gas Water Heaters
- List of Approved Water Heaters
- Trade Names of Approved Water Heaters
- Adjustment and Servicing of Individual Water Heater Controls

# Training Employees for the Promotion of Good-Will and Sales\*



M. S. Viteles

**N**O attempt is made here to discuss the formal training program for employees whose sole or chief job is that of selling. Such training is, of course, extremely important, and in the company I represent a special training program for this purpose has been developed. This address is concerned with the steps to be taken in promoting among employees on other than sales jobs a recognition of the importance of promoting good-will and sales and a favorable attitude toward these activities, as well as a knowledge of the methods to be used in connection with them.

There is no need to discuss in detail the importance of developing good-will and promoting sales of gas services and appliances. However, a brief statement of the problem, as presented by H. P. Liversidge, general manager of the Philadelphia Electric Company, seems in place:

"It is quite likely," writes Mr. Liversidge, "that since we have moved ahead rapidly in the development of the industry, increasing the scope of our activities and the size of our companies and their personnel, there has been a tendency to widen the gap between utility management and the public we serve. The larger we grow and the more diversified our service becomes—the less the contact—the psychological contact—is likely to be, and the greater the possibility of misunderstanding between the public and

By **MORRIS S. VITELES**

Director of Personnel Research,  
Philadelphia Electric Company

ourselves. It is right here that I believe we can lay our finger on the cause of most of our trouble. We have grown away from the small community type of relationship between management and the public and have injected into the breach a great body of employees to make the same contacts formerly made by executives thoroughly familiar with company policies and company performances.

Dr. Viteles has been actively engaged in research and practice in the field of industrial psychology for the past 15 years, combining research in the university laboratory with the development of practical administrative programs in the capacity of consulting psychologist for prominent industrial organizations, including The Milwaukee Electric Railway and Light Company, John Wanamaker, Philadelphia, The Detroit Edison Company, The Parmelee Transportation System, Faulkner & Colony Manufacturing Company, and, in recent years, with the Philadelphia Electric Company.

"One of the greatest proclivities of the human race seems to be its inertia to rapidly changing conditions. We are all more or less inclined to be mentally sluggish and it is my belief that we have been slow to appreciate what has occurred and to recognize clearly some of the potential dangers which lie in the path of our future progress. If we are to develop our future program successfully the personnel of each individual company, every man and woman engaged in the detail operation of its business must be taught to appreciate his responsibility as a representative of the company to the citizens of the community. He must realize that insofar as the customer is concerned he is the company and his contact must arouse the same feeling of satisfaction as if

that contact were made by an executive of the company.

"In the rush and whirl of business life there is too great a tendency to devote the major attention to obtaining contracts for service and too little attention to keeping the customer sold after the introduction of that service. The entire future business relationship with the customer, the revenue which the company expects to receive for an indefinite period, are wrapped up not only in rates and reliability of service, but in the continuing friendly relations which must be maintained in the run-of-day contacts."

## Fundamental Steps

The development of an interest in maintaining such friendly contacts,—in the promotion of good-will and sales and a knowledge of how to do this involves the application of four fundamental steps.

1. The employee must know his company. This seems like an obvious principle, but like many other principles of the same kind, including the

Golden Rule, it is probably more honored in its neglect than in its observation.

By knowledge of the company is not meant superficial information with respect to how many employees there are in the company, the number and names of executive officers, the names of the major departments, etc., but an intimate knowledge of how each unit of the company operates in furthering the utility's objectives of supplying continuous and reliable service at fair rates, with due regard for the interests and welfare of the community at large. Again, this implies not merely the presentation to the employee of a series of platitudes but the discussion of particular specific cases which illustrate how each unit works.

\* Portion of address delivered at Convention of Pennsylvania Gas Association.



For example, the reliability of service can be described in a series of general statements on policies applied by the company in the purchase and inspection of equipment, or, perhaps, in even the more technical terms of the safety allowance specified for particular equipment. From the viewpoint of giving the employee a really intimate knowledge of how the company operates, which he can use as a basis for his further thinking and for discussion with those who raise questions concerning the company, the presentation of such material has little value. If, instead, the employee is told about incidents, illustrative of how the company operates in maintaining service in an emergency, he has material which he can use directly in his customer and public contacts for furthering the objective of stimulating good-will.

#### *Job Training*

2. The second fundamental step in training employees in promoting good-will and sales is to make sure that every employee knows how to do his own job.

Job training, which will assure as near perfect accomplishment as possible of each individual employee on his own job, is a particularly important step in promoting good-will. This is true because, to a large extent, the customer judges the company in terms of his contacts with individual employees. If his appliance is not satisfactorily repaired, he is apt to form an unfavorable impression of the company which will color his judgment of every activity of the company. On the other hand, the appliance service man who does a good job awakens favorable feelings that color the customer's thinking with respect to the company. The meter reader, the troubleman, the pipe fitter, and every other class of employee can make a contribution toward good-will by doing his job well. It is management's function to see that each employee receives the kind of training he needs to be able to do his kind of a job. This principle requires no further discussion here.

3. The third important step in training employees to promote good-will and sales is to give the employee some knowledge of the methods em-

ployed by the salesmen and other contact employees in making good personal contacts.

#### *Contact Training*

This means that the employee must be made more than good-will conscious or sales conscious, but that he must also be given a skeleton outline with respect to how to handle a contact or sales situation. Such training will naturally be given to sales people and to customers service representatives, home visitors and other groups of employees whose job involves direct contact with customers. It must also be given in more detailed form to junior engineers, to governor station employees, to gas plant workers who do not ordinarily contact the public or customers as part of the job, but who may be called upon to do so as part of the employee good-will and sales programs developed by the public utility.

In Philadelphia Electric Company such a program has been furthered through the discussion, in group meetings, of case problems centered specifically around the methods to be employed in making good contacts. Further reference will be made to this in a later section of this paper.

4. The steps in promoting employee good-will and sales activities have not been listed in the order of importance. It is therefore possible to mention last, without fear of creating the impression that it is the least important, the very important step of making sure that the employee's attitudes are favorable toward the company for which he is working.

#### *Respect for Company*

In the opinion of the speaker, no sound program of good-will and sales activities on the part of employees is possible unless employees are sold on the company for which they work. The employee must be motivated by a feeling of regard for the organization and by a sincere desire to promote its welfare. This does not mean a development by high-pressure methods of a kind of nebulous feeling of regard for a sort of intangible something designated as the company.

This reference to the development of favorable attitudes assumes that the

relationship between the employee and the company for which he works, next to his family relationship, is the most important and intimate thing in his life. From it the employee derives his living, supports his family, educates his children and looks for help in sickness and disability. In turn, the company can only function through the human beings that constitute its body of employees. Its success or failure is to a large measure dependent upon them.

It seems perfectly clear that, on the one hand, no industrial organization successfully performs its work in the world unless its employees receive fair and adequate compensation; its competent workers are reasonably secure in the performance of their employment, and assuming that the business prospers, provisions for sickness and disability and other privileges are made.

#### *Training Program*

The employee must believe that the organization for which he is working is fully meeting these obligations. He should appreciate, on the other hand, that he is bound to give to the company the full measure of his work and ability and, both during and after working hours, to defend its interests where these are unfairly jeopardized. Leaving the question of loyalty entirely aside, intelligent, enlightened self-interest leaves no other course open to the employee who recognizes the intimate interdependence of company and employee welfare.

The question that naturally arises out of this discussion is what procedures can be employed in putting the principles which have been cited into operation.

One step taken by the Philadelphia Electric Company has been the development of *know your company* training programs. During the past four years, such training has been conducted through the agency of semi-monthly conferences devoted to a discussion of prepared papers and case problems. Approximately 2600 employees were enrolled in this training course for the current year. This represents 41 per cent of the entire working force. They met in 78 classes conducted by 124 conference leaders and alternates. Classes included one or more confer-

ence groups in each district and division office and conference groups in various divisions of the Operations, Sales, Controller's, Personnel, Building Management, Real Estate, and Engineering Departments.

With each paper were included case problems pertinent to the topic under discussion. The case problems represented typical situations requiring practical and wise handling by company employees if the customer was to be served satisfactorily and the company's reputation for fairness and consideration to be maintained.

In this course employees attended classes twice a month for a period of five months. Lesson material was distributed to employees at least five days before the meeting date. Each class was of one hour's duration or a little longer (at the discretion of the conference leader) if discussion on the paper and case problems seemed particularly lively.

The first 10 minutes of each class period were given over to a written examination on the current lesson. Quizzes were graded by the conference leader and returned to the class members. A record of the grades was forwarded to the Personnel Department.

The succeeding 10 minutes of the class period were devoted to a resumé of the paper by the conference leader and a discussion of questions concerning the paper raised by members of the class. The balance of the class period was devoted to a discussion of the case problems.

#### *Conference Groups*

A conference leader and an alternate were appointed for each group. The conference leaders and alternates are responsible for administering the details of the training program. Copies of the lesson papers were distributed to conference leaders and alternates approximately two weeks prior to the meeting at which the paper is discussed. Conference leaders read the paper and prepare in writing such questions concerning it as occur to them. Conference leaders and alternates met with the Director of Personnel Research in advance of the day of the meeting at which the paper was

to be presented to discuss the lesson and case problems with him.

The meeting of the conference leaders and alternates with the Director of Personnel Research was considered a very essential step in the training of conference leaders for conducting the conference groups. At this meeting there were also discussed the quizzes to be used in the current lesson and questions raised by employees at the previous group meetings. In this manner conference leaders were able to note particular items of interest and questions raised at the meeting and to bring them to the attention of their individual groups at the succeeding class meetings.

This description of Philadelphia

Electric Company training program is cited as an example of one method that may be employed in formal training for promotion of good-will and sales. Other methods probably equally suitable can be employed. Each, however, must be developed with particular reference to the needs of the company, and must cover facts concerning that particular company. In the opinion of the speaker, there can be no such thing as a universal training program equally adapted to the needs of all organizations, although it may be possible for independent and particularly, smaller companies, through properly organized conferences, to formulate general methods which may be more or less universally applied.

## Sixty Years of Continuous Service with the Same Company

**E**VEN in the gas industry, where long years of service are the rule rather than the exception, sixty years of continuous service with the same company constitute an outstanding achievement. That is the record of which William Armstrong, fitter of the Consumers Gas Company of Toronto, is justly proud.

Since August 12, 1874, Mr. Armstrong has served his company. During that time, it has grown from a small concern, serving 2292 consumers, until today it has a total of 170,000. Its assets have increased from \$712,000 to 25½ million dollars. An astounding record of development and progress has been made, while Mr. Armstrong pursued his daily round of activity.

In commemoration of his faithful service, the Consumers Gas Company has issued a pamphlet entitled "Sixty Years," describing incidents in his career, as he and his company marched step by step through the passing years. It might well be the story of other men and other companies.

The following excerpts from the pamphlet reveal Mr. Armstrong as his fellow-workers see him:

"To see him of a morning, making his daily call at Head Office, it is difficult to believe that on August 12th, he will have completed sixty years of service with the Company. Jaunty, trim, alert, he



*William Armstrong*

steps along almost as briskly as ever, his step and the swing of him making a strenuous protest against the passing of the years.

"He is the 'Peter Pan' of the gas industry.

"We see him wear his cap with his badge number on it. It becomes him. He wears it proudly. It is his crown of daily life. He dons it each day with thankfulness. When he lays it off, it will be with real regret, for to him it is the symbol of the faith with which he has served the Company and of the faith, too, that the Company places in him and that it keeps with him.

"During his years of service he must have entered thousands of homes. We can only imagine that his presence in these homes, working as a fitter, must have created much good-will for the Company."

### "Cold Facts About Health"

**T**HE many ways in which an Electrolux refrigerator can be used in the home as an aid in promoting and preserving health from babyhood on, or as a help in time of sickness, are described in a booklet prepared for the home service departments of gas companies.

The booklet, entitled "Cold Facts About Health," was prepared under the direction of Jane Tiffany Wagner, head of the Home Service Department of Electrolux Refrigerator Sales, Inc. Miss Wagner, an authority on home economics, cooperates with the heads of home service departments of gas companies by furnishing the latest information on household refrigeration.



## Delegates from Twenty Nations Attend International Gas Conference



A. Baril

**T**HE second International Gas Conference which was held at Zurich, Switzerland, September 1 to 4, under the presidential direction of Fritz Escher, managing director of the Zurich Gas

Works, was attended by representatives of twenty nations.

The gas industry of the United States was represented by Clifford E. Paige, vice-president of The Brooklyn Union Gas Company and vice-president of the International Gas Union; W. Reed Morris, vice-president of the Koppers Gas and Coke Company; Hilmar Papst, vice-president and general manager of the Portland Gas and Coke Company; and Alexander Forward, managing director of the American Gas Association.

At a meeting of the council, made up of two representatives from each company, A. Baril was elected president of the International Gas Union for the new three-year term. Mr. Baril visited the United States last year as leader of the French delegation which attended the American Gas Association convention in Chicago. M. Mougin was re-elected secretary and Professor Brender à Brandis of The Hague was elected an additional vice-presi-

dent. The next meeting will be held in Paris in 1937.

The papers presented dealt with a variety of subjects. Many of them were comparative reviews of gas industry practice in the different countries making up the membership of the International Gas Union. The difficulty in languages was overcome by the publication of summaries in French, German and English.

Major Forward of the American Gas Association presented the greetings of the Association at the first session. At the cabled request of the Canadian Gas Association, Mr. Paige conveyed that association's felicitations.

The contribution of the United States was presented at the opening session by Clifford E. Paige, who was introduced by Dr. Escher. His paper was entitled, "Coordinated Research and Coordinated Rate Making." Mr. Paige enlarged upon his prepared paper by a discussion of conditions in America, including new developments in governmentally directed competition. Leaders of the gas fraternity throughout the world are now well acquainted with Mr. Paige, who addressed the First International Conference in London in 1931.

A paper covering developments of the use of gas for domestic purposes was presented by C. Valon Bennett, president of the Institution of Gas Engineers, London, England. This paper brought out the fact that, as far as

sales policy is concerned, the progressive gas undertakings of all companies have many features in common. Where differences exist, they were ascribed to variations in social, economic and climatic conditions.

A representative of Switzerland presented a report on piping buildings. In this report, it was found that iron pipes are used principally and that the use of lead is almost universally prohibited. It appears that every company prohibits the use of appliances which cannot be regulated so as to insure complete combustion always.

The subject of "Coordination of Methods of Testing Gas Appliances" was reported by a French delegate. The report was based on replies to questionnaires sent to fifteen national organizations. It was brought out that appliance stamping is practiced in Germany, Canada, France, Holland, Sweden and Switzerland as well as in the United States. It was evident that no two countries have identical practices in the manner of determining calorific content and other factors. A small committee is to be named by the president to pursue this subject further and to ascertain if some degree of uniformity can be attained. This report will be presented before the next international conference.

The Belgian Gas Association presented a comprehensive study on the methods for developing industrial utilization, including the hotel industry.



The general report recommended that the most effective course which can be pursued in connection with industries is the personal visit made by especially qualified agents and that for medium and large industries specialist engineers are desirable. The scope of the work undertaken proved to be so broad that additional studies are yet to be made.

The German report dealt with coordinating methods for testing and guaranteeing gas making plants. It was found that German rules existed as far back as 1912 for oven plants and generator plants. It was also found that Holland and the United States have such standards. The report pointed out that in the interest of aiming at and exacting the highest degree of economy from gas production plants there must necessarily be standardization to permit the issuance of guarantees so that comparisons may readily be made. Moreover, the methods of testing must be such as to permit of exact proof.

On September 4, President Escher was host to about thirty-five of the conference delegates at dinner at Gessellschaftshaus Zum Schneggen in Zurich, a club known to be about 500 years old. Membership of the club, which is frequently given over to the entertainment of royalty, is limited to sixty-five and is made up of Zurich's principal families.

From the technical and commercial points of view, the pooling of information and interchange of ideas between the gas men of different countries of the world proved most helpful. In addition, those in attendance were given an opportunity to understand the differing national viewpoints.

### Richard T. Higgins Dies

**R**ICHARD T. HIGGINS, chairman of the Connecticut Public Utilities Commission since its establishment twenty-two years ago, died September 15 at the Hartford Hospital, where he underwent an operation two days previous. His age was 68.

Chairman Higgins was elected last year as president of the National Association of Railroad and Utilities Commissioners, a post he held at his death. His close contact with the engineers of the State during his long service enabled him, a lawyer, to gain a reputation for expert decisions in the cases brought before him. As a result he was made an honorary member of the

## Gas Companies To Take Part in National Meat Board Cooking Schools

**A**S a result of cordial and cooperative relations between the American Gas Association and the National Live Stock and Meat Board, gas companies in the 100 cities where National Live Stock cooking schools will be held during the next twelve months have been offered participation in these schools.

In each instance the schools are conducted under the auspices of a local newspaper which is furnished with a complete copy service to promote attendance. Gas companies cooperating in their local schools will place substantial advertising lineage in the newspaper previous to and during the cooking school week, and, in addition, will donate a gas range for use as a prize award.

The National Live Stock and Meat Board is not a marketing agency. Its function is research and education, cooperating with universities, high schools, colleges and other educational institutions and directly with the housewife in meat cookery and better ways of using meat.

It is estimated that there will be a total attendance of approximately 850,000 during the course of these 100 cooking schools. On the evening prior to the opening of the school a special retailers' meeting is held at which time the dealers usually see the stage set with cooking equipment and products in place. Dealers are frequently accompanied by their wives and it has been found that these meetings result in a better sales follow-up by the dealers during the school and after it is concluded.

The Commercial Section of the Association which has sponsored this arrangement, has prepared script for a lecture on gas service which will be utilized by those conducting the schools.

Several years ago the National Live Stock and Meat Board, after extensive research on the subject of meat shrinkage, gave authoritative statement to the fact that shrinkage of meat is not dependent upon the type of fuel employed. It is believed that the further confirmation of this research by representatives of the National Live Stock and Meat Board will go a long way toward off-setting propaganda of competitors that shrinkage is greater with gas fuel than other services.

Although responses are not yet complete from the 100 cities in which cooking schools will be held, the following gas companies have advised the Commercial Section, that they will participate in the schools to be held in their communities:

Lowell Gas Light Co., Lowell, Mass.; Southern Cities Distributing Co., Shreveport, La.; Knoxville Gas Co., Knoxville, Tenn.; Memphis Power & Light Co., Memphis, Tenn.; New Bedford Gas and Edison Light Co., New Bedford, Mass.; New Haven Gas Light Co., New Haven, Conn.; Central Illinois Electric & Gas Co., Rockford, Ill.; Department of Public Utilities, City of Richmond, Va.; Portland Gas Light Co., Portland, Me.; The East Ohio Gas Company, Canton, Ohio; North Shore Gas Co., Waukegan, Ill.; Battle Creek Gas Co., Battle Creek, Mich.; Little Rock Gas & Fuel Co., Little Rock, Ark.; Chattanooga Gas Co., Chattanooga, Tenn.; Washington Gas Light Co., Washington, D. C.; Central Illinois Light Co., Springfield, Ill.; Southern Indiana Gas & Electric Co., Evansville, Ind.; The Capital Gas & Electric Co., Topeka, Kansas; Public Service Electric & Gas Co., Jersey City, N. J.; St. Joseph Gas Co., St. Joseph, Mo.; Consumers Gas Co., Reading, Pa.

Connecticut Society of Civil Engineers in 1932.

Chairman Higgins's administration was known for its conservative control of the public service companies of the State.

He was to have addressed the forthcoming Convention of the American Gas Association at Atlantic City.

### Gas Ranges Replace Electric

**T**HE management and owners of the Ricardo Hotel in Kansas City, seeking economy in the operation of their building, recently purchased from the Kansas City Gas Company 49 new gas ranges to replace electric ranges. New gas ranges have been installed in every apartment in the building, all of them replacing the electric equipment. The Ricardo Hotel is located at 811 East Armour Blvd. in Kansas City.

The ranges were sold by H. D. McGrath, industrial engineer of the gas company's new business department.

The company also recently sold 68 new gas ranges for the Alexandria Apartment Hotel in Kansas City. All of these new ranges will replace old gas ranges. They are being purchased in order to give more satisfactory cooking service to the tenants in the Alexandria Hotel.

This order was obtained by Frank Pexton, industrial engineer of the Kansas City Gas Company.

### Janet MacRorie with NBC

**J**ANET MACRORIE has joined the National Broadcasting Company, New York. For more than eight years she has been with the Public Service Company of New Jersey, in charge of new business advertising.

## Awards Made in West's Gas Competition

**WEST GAS IMPROVEMENT COMPANY**, 424 Madison Avenue, New York City, has announced the adjudicator's awards in the company's midsummer competition. This competition, as announced in the April issue of *THE MONTHLY*, was open to contestants in any parts of the world and was for the best articles submitted under the following general headings: Coke, Technical Control of the Gas Works, Industrial Gas, Gas in the Home, and Tar.

The awards are as follows:

### Group 1—"Coke"

First Prize—J. F. Lord, Darlington, England.

Second Prize—F. M. H. Taylor, London, England.

### Group 2—"Technical Control"

First Prize—T. B. Glover, Buenos Aires, South America.

Second Prize—A. McDonald, Motherwell, Scotland.

### Group 3—"Industrial Gas"

First Prize—  
 { J. E. White, Newcastle-on-Tyne, England.  
 { W. Hind, Coventry, England.

### Group 4—"Gas in the Home"

First Prize—F. C. K. Crockett, Toronto, Canada.

Second Prize—Mrs. Eileen Murphy, London, England.

### Group 5—"Tar"

First Prize—R. S. Andrews, West Melbourne, Australia.

Second Prize—A. T. Brown, Sydney, Australia.

The first prize in each group is 20 guineas (approximately \$105) and the second prize is 10 guineas (approximately \$52).

The competition number of "West's Gas," which will be published about the end of September, will contain all the prize-winning articles and also the judge's report on all the entries received. Papers receiving Honorable Mention will be reserved for future publication in "West's Gas," the monthly publication of West's Gas Improvement Company, London, England.

## Celebrates Fiftieth Anniversary

**MALCOLM M. GRAHAM**, assistant treasurer of the Consolidated Gas Company of New York, recently celebrated his fiftieth anniversary with the company and its affiliated and predecessor companies. He was employed as an office boy by the Equitable Gas Light Company on September 12, 1884.

He is the first officer of the Consolidated Gas Company to achieve a fifty-year service record.

On September 12, Mr. Graham was the guest of honor at a dinner at the University Club given by his business associates

in the Consolidated Gas Company and its affiliated companies. President George B. Cortelyou acted as toastmaster.

Mr. Graham was made assistant secretary in 1898 of the New Amsterdam Gas Company, which was formed to consolidate the Equitable Company and the New York and East River Gas Company. On March 4, 1924, he was appointed assistant treasurer of the Consolidated Gas Company of New York. At present he is also assistant treasurer of the Astoria Light, Heat and Power Company and assistant treasurer of the Standard Gas Light Company of the City of New York.

## E. M. Farnsworth, Jr., Named to Boston Post



E. M. Farnsworth, Jr.

**E. M. FARNSWORTH, JR.**, has been elected vice-president and general manager of the Boston Consolidated Gas Co.

Mr. Farnsworth has been president of the Old Colony Gas Co. since 1929, having previously had the positions of vice-president and

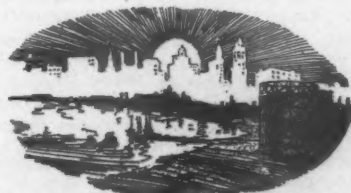
treasurer of that organization. His career as a gas company official began with the rehabilitation of the Old Colony Gas Co. in 1917.

He was graduated from Harvard in 1906 and received his engineering degree in 1907. He was first associated with Stone & Webster, later going with the Old Colony Gas Co., becoming president when the company was purchased by Eastern Gas & Fuel Associates.

## J. F. Rooney Elected Treasurer

**JOSEPH F. ROONEY**, assistant treasurer of the American Gas Association since 1929, has been elected treasurer to fill the unexpired term of the late William J. Welsh. The election was held September 26 by the Executive Board of the Association.

Mr. Rooney is assistant to the vice-president, Consolidated Gas Company of New York, and has been a member of that organization for twenty years. He also has been active in committee work of the Association.



## Convention Calendar

### OCTOBER

- 1-5 National Safety Council  
New York, N. Y.
- 1-5 National Metal Exposition  
New York, N. Y.
- 9-11 Pacific Coast Gas Association  
Del Monte Hotel, Del Monte, Calif.
- 14-19 American Dietetics Association  
Mayflower Hotel, Washington, D. C.
- Wk. 29 American Gas Association Convention and Exhibition  
Atlantic City, N. J.

### NOVEMBER

- 6-7 Autumn Research Meeting, The Institution of Gas Engineers  
London, England
- 12-15 National Assn. Railroad & Utilities Commissioners  
Washington, D. C.
- 12-15 American Petroleum Institute  
Dallas, Texas

## Empire State Gas and Electric Association

**PRESIDENT H. O. CASTER** of the American Gas Association will be one of the principal speakers at the twenty-ninth annual convention of the Empire State Gas and Electric Association to be held at the Westchester Country Club, Rye, N. Y., Friday and Saturday, October 5 and 6. Alfred H. Schoellkopf, president of the Association, will preside and deliver the opening address at the Friday morning session.

The address by Mr. Caster will be the next item on the program to be followed by an address by Thomas N. McCarter, president of the Edison Electric Institute. "Social Insurance" will be the subject discussed by the next speaker, H. C. Hasbrouck. The first morning session will close with a talk on "Rate Adjustment Plans," the speaker to be announced.

Friday afternoon will be devoted to a golf tournament, always a feature of the annual convention of the Empire State Association. A dinner dance will be held in the evening.

An interesting and timely program has been arranged for Saturday morning including the following addresses: "Roadway Lighting and Traffic Accidents" by Dudley M. Diggs, General Electric Company, with a summing up by C. W. Appleton, vice-president, General Electric Company; "Sales Methods for Profits for 1935" by Henry O. Loebell, vice-presi-

dent, Natural Gas Pipeline Company of America; and "Load Building" by A. G. Allen, vice-president in charge of merchandising, Westinghouse Electric and Manufacturing Company.

### Pacific Coast Gas Association

**T**HE Forty-First Annual Convention of the Pacific Coast Gas Association, scheduled to have taken place at the Hotel Del Monte on September 11, 12 and 13, was postponed until October 9, 10 and 11. The convention program will remain the same as originally planned. Hotel reservations will automatically be carried ahead to the new dates unless cancelled. There is every reason to believe that this will be one of the most important annual meetings ever held by this Association.

### Wisconsin Utilities Association

**A**LL previous attendance records for a Commercial Section Convention of the Wisconsin Utilities Association were shattered at the recent meeting held in Milwaukee, September 10 and 11. In the opinion of many old-timers, program records were excelled also, as the meeting was productive of many stimulating and thought-provoking messages.

The gas division program, arranged by Henry Dropp and committee chairmen, attracted the largest individual session attendance. An outstanding feature of this session was the lighting program arranged by I. L. Illing.

An exhibition arranged by Frank Coffin and his special manufacturers' committee, together with the assistance of commercial managers of the company, was one of the most comprehensive ever displayed. Forty-one manufacturing companies displayed their products and every available space was used.

The chairman, Allen C. Davis, in opening the convention called attention to the fact that there are over 1,000 people in Wisconsin who are directly or indirectly dependent upon utility merchandising activities for their livelihood. These people represent a total payroll of considerably more than \$1,000,000 annually.

In a provocative address, James Mangan, director of advertising and merchandising, Mills Novelty Company, Chicago, brought out that high-pressure salesmanship is not more than five per cent efficient. According to Mr. Mangan, it is being supplanted by a combination of masculine and feminine appeal formula.

Harvey R. Habeck, Milwaukee, district counsel of the Home Owners' Loan Corporation, explained how that corporation and the new Housing Administration had been developing their program. Mr. Habeck said that proper merchandising and promotion by dealers and contractors should enable them to capitalize on the program of both the Home Owners' Loan Corporation and the Housing Administration.

The home service point of view was covered by Arline Frances Mooney of the Northern States Power Company, Eau Claire, who substituted for Miss Val Thorson. During the course of her address, Miss Mooney said, "Mrs. Homemaker has every right to feel that when buying equipment from the utility she is going to get standard certified equipment, equipment that will give service."

Dorothy E. Shank, director, research kitchen, American Stove Company, who was the first speaker on the program of the gas division, presented a detailed account of the history and development of the gas range in kitchen planning.

The great possibilities for gas companies through air conditioning equipment, which is now being placed on the market, were graphically pictured by Lyle Harvey of the Bryant Heater Company. He said that the most satisfactory air conditioning can be accomplished by dehumidification and through the absorption system, and that meant gas air conditioning.

E. C. Sorby of the Roper Corporation, effectively dramatized the imaginary conversation in which an electric range salesman is outsold by a housewife, who had been thoroughly sold on the modern gas range.

Other speakers on the program were E. C. Weston of Electric and Gas Utilities, who described the success which his company met with its gas refrigeration program, and C. E. Bartlett of the Ruud Manufacturing Company, who spoke on "New Methods in Water Heating."

New officers of the Commercial Section elected at the meeting are: S. L. Hagen, Northern States Power Company, Eau Claire, Chairman; and H. W. Cooper, Wisconsin Power and Light Company, Madison, Vice-Chairman.

### Welsbach Co. Elects H. N. Ramsey

**T**HE Welsbach Co., Gloucester, N. J., since 1887 an important factor in the development of the gas industry, has announced changes in its executive personnel. H. N. Ramsey was elected president succeeding H. R. Martz, resigned. C. A. Holdcraft succeeds A. L. Fowler as treasurer.

### Members Invited to Attend Melbourne Gas Congress

**T**HE American Gas Association has received a cable from P. C. Holmes Hunt, managing director of the Colonial Gas Association, Melbourne, Australia, inviting members of the Association to attend the Gas Congress and Victorian Centenary Celebrations in Melbourne, October 30 to November 1.

Two papers by American authors have been prepared for presentation at the Congress. They are: "American Experience of the Most Effective Methods for Developing Domestic Water Heating by Gas," by C. George Segeler, engineer of utilization, American Gas Association, and "American Experience of the Value of Testing Gas Appliances as an Instrument for Increasing Gas Sales," by R. M. Conner, director, A. G. A. Testing Laboratory, Cleveland.

The C. M. Kemp Company's well-known submerged combustion demonstration will be exhibited.

Messrs. Martz, Fowler and W. Findlay Downs retired from the board of directors and the vacancies were filled by the election of Messrs. Ramsey, H. W. Reed and F. A. Wegener.

Mr. Ramsey, who was graduated from the University of Pennsylvania in 1920, has previously been engaged in engineering and executive activities with the American Gas Co., The U. G. I. Co., Dwight P. Robinson & Co., and United Engineers & Constructors Inc., and in addition to his wide engineering experience brings to the company a well-rounded business training.

### Dies in Morro Castle Tragedy

**T**HE tragedy of the *Morro Castle* disaster was brought home to the gas industry by the death of Edward J. Brady, manager of The United Gas Improvement Company's Physical Laboratory at Point Breeze. Mr. Brady, who was 54 years old, was drowned September 8, some seven hours after he and his wife and daughter jumped from the burning hull of the Havana liner. Mrs. Brady and their daughter, Nancy Ann, were saved shortly after Mr. Brady's strength failed him.

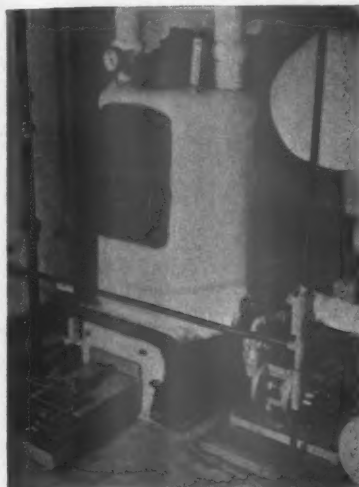
Mr. Brady started his career with the U. G. I. as laboratory assistant nearly twenty-five years ago under the guidance of the late Charles O. Bond. He had then built up a background of experience in engineering work that had taken him from coast to coast. He was of a scholarly and academic manner and his ability to combine academic thinking with practical industrial problems resulted in scores of improvements and new methods in engineering practice.

He invented and designed the "Brady B.t.u. Indicator," a device that has been sold by his company to gas plants throughout the world. This achievement brought him the Beal Medal in 1919, which is awarded by the American Gas Association for outstanding contributions to the industry. Many laboratory methods used in testing gas oils and high-temperature refractories were his.

Mr. Brady was a member of the American Gas Association and many other technical and engineering societies.



## Gas Water Heating for Mohawk Golf Club



300 gal.-per-hour condensate pump, a Roberts conversion burner and controls.

Two surface aquastats were used. One was installed at the bottom of the 500-gal. storage tank as a thermostat, and the other on the riser from the heater as a high limit control. The pump was installed between the storage tank and heater for forced circulation and is controlled from auxiliary contacts in the motor valve of the burner. The burner was adjusted to pass 315 cu.ft. of gas per hour to deliver over 300 gal. of usable hot water per hour on a single pass through the heater.

The installation has been working satisfactorily and efficiently. The combustion efficiency calculated from stack losses is slightly in excess of 80%.

Based on five summer months of last year, the small original heater consumed an average of 3



**R**ECENTLY a gas water heating installation was sold to the Mohawk Golf Club, Schenectady, N. Y., to supply hot water for the men's locker rooms and showers. The installation replaced anthracite coal and was sold against oil competition.

The hot water supply had been inadequate during peak periods because of the small storage capacity and slow recovery of the heater. A larger coal heater was installed this spring when the original heater broke down. The new heater could not supply the demand during peak periods and during off-peak periods overheated the water to as much as 250° F., even though the fire was banked. The coal heating equipment consisted of a Richardson Super Test 1205 heater, manufactured by Richardson & Boynton. It had a rated capacity of 950 gallons of water with a 25° rise in six-hour firing periods.

Since the equipment was well insulated and in good condition, a gas conversion job was installed to keep the installation cost at a minimum. It consisted of a Burke

tons of anthracite coal a month at \$13.00 per ton, or an average cost of \$39.00 a month, and the service was not complete. The consumption of gas for the first month, a heavy month, was 73,000 cu.ft., or a cost of approximately \$41.00, and the hot water service was complete. There has been ample hot water during all peak periods.

The net gas rate for this service is as follows:

First 615 cu.ft. or less per month	\$ .75
Next 2178 cu.ft. per month, per M cu.ft.	1.16
Next 2235 cu.ft. per month, per M cu.ft.	1.01
Next 3352 cu.ft. per month, per M cu.ft.	.78
Excess cu.ft. per month, per M cu.ft.	.51

### NEMA Motor and Generator Standards

The National Electrical Manufacturers Association, 155 East 44th Street, New York, N. Y., has announced the publication of a new edition of "NEMA Motor and Generator Standards," superseding and amplifying the 1930 edition. Accord-

ing to the association, the new publication contains much practical information concerning the manufacture, test and performance of AC and DC motors, generators and combinations of both. Standardized mounting dimensions for motors have also been included. The new edition, comprising 176 pages, size 8 x 10½ inches, may be purchased for \$2 per copy.

### Lower Fuel Cost

The Superior Foundry Company at Cleveland, Ohio, has recently converted two Strong, Carlisle and Hammond semi-muffle furnaces for annealing gray iron castings from oil to natural gas. Although the lower over-all fuel cost and the greater flexibility of natural gas were important advantages in making this sale, the fact that The East Ohio Gas Company had recently made a satisfactory conversion of a battery of 11 core ovens from coke to gas operation in the same plant was of great assistance.

A. T. Code, assistant manager, industrial department, of The East Ohio Gas Company, states that natural gas at 50 cents per M cu.ft. displaced fuel oil at 6 cents per gallon. The conversion was made with North American elbow type burners using air at 8 oz. pressure, each furnace burning approximately 1000 cubic feet of natural gas per hour.

### Rotarians and the Gas Industry

A special meeting of rotarians connected with the gas industry was held during the course of the recent Conference of British Rotary (R. I. B. I.) in Douglas. Of the ten delegates attending, seven represented gas undertakings, while the remaining three represented industries allied to the gas industry. The opinion of the meeting was that, practically, every senior executive was a member either of his district association or of the Institution of Gas Engineers, or of both, and consequently that every "Gas" rotarian was a member of his professional association.

In the opinion of the meeting, no more favorable opportunity for an interchange of opinions between representatives of the gas industry and representatives of industries supplying a similar, or even a rival service, is provided than a vocational group meeting at an annual British Rotary Conference, conducted in a spirit of rotarian fellowship. The meeting, therefore, recorded a suggestion that at future rotary conferences there be held a group meeting, called "Light, Heat, and Power," and comprised of the coal, electricity, and gas groups.—London Gas Journal.

## ACCOUNTING SECTION

E. B. NUTT, Chairman

H. W. HARTMAN, Secretary

A. S. CORSON, Vice-Chairman

# Procedure for a Meter-Record Reference File\*

**T**HERE was a period in the history of many public utilities when the customers accounts records were the only readily available and up-to-date information at hand concerning service relations with customers. Years ago, a record of this type was probably sufficient. As time went on, however, the need for a more efficient arrangement became necessary. Clerks who received

\* Contribution of the Customer Accounting Committee.

By S. A. HILL

The Peoples Gas Light & Coke Co.,  
Chicago, Ill.

applications for service needed to know promptly whether the premises to be served were provided with meters, so that the orders might be dispatched properly designated as "meter sets" or "turn ons." Information had to be obtained as to the cor-

rect size of the meter required, the date the meter was to be turned on or off, etc.

This problem was solved in one company by the adoption of a reference file, consisting of colored 3- by 5-inch cards. Each card bears an addressographed imprint of an address, floor location, customer's name, and account number. Immediately following the completion of the turn-on or meter-set work, the imprints are made from the addressograph plate prepared to address the subsequent service bills. Each color designates a specific rate classification.

## Accounting Section Luncheon Conferences



**P**LANs are nearing completion for a series of Accounting Section Luncheon Conferences which will be held at the Ambassador Hotel, Atlantic City, Wednesday, October 31, 1934. The luncheons will commence promptly at 12:30 P.M. Reservation blanks have been mailed to all Accounting Section members.

The primary purpose of these meetings is to provide an informal atmosphere for the free exchange of ideas on the various phases of Accounting Section work and to get members who have like responsibilities better acquainted. Minutes will not be recorded. Everything will be "off the record."

The controversial nature of the subjects which will be discussed promises an enthusiastic response from the membership as well as a large attendance.

Prominent members of the Accounting Section, each of whom is an authority in his field, will lead the discussion groups as follows:

Accounting Machines—J. L. Conover, Public Service Electric & Gas Co., Newark, N. J.

Customers' Accounting—J. M. Roberts, The Peoples Gas Light & Coke Co., Chicago, Ill.

Customer Relations—H. T. East, Public Service Company of Northern Illinois, Chicago, Ill.

General Accounting—J. I. Blanchfield, The Brooklyn Union Gas Company, Brooklyn, N. Y.

Office Management—A. M. Boyd, Philadelphia Electric Company, Philadelphia, Pa.

Each Luncheon Conference Group will be assigned a private dining room sufficient for its needs so that ample opportunity will be afforded for discussion by all those present.

### Reservations

Those planning to attend are urged to send their reservations to Headquarters promptly, accompanied by the luncheon fee of \$1.00, which will cover all expenses. Prompt receipt of reservations will assist the committee in completing its plans to accommodate comfortably all those who wish to attend. The luncheon accommodations are necessarily limited and tickets will be issued in the order in which reservations are received.

### Exhibits

The Accounting Section will hold no other session on the day of the luncheon conferences. It is planned to adjourn the meetings in the middle of the afternoon so that the members can attend the exhibits of the manufacturing companies in the Convention Hall, which is just a few minutes' walk from the Ambassador Hotel.

### Card Routine

The imprinted cards, and the corresponding turn-on or meter-set ticket, are routed to the reference-file clerk. Here the meter number, the size of the meter, and the date turned on or set are added to the card. When the meter installation is a "master-meter" job, the card is so noted. When the installation covers more than one meter, the cards are cross-referenced to show that condition. The number of apartments supplied by the installation is also noted on the card. Special master cards are prepared for large apartment buildings, to show the various entrances to the building, the number of apartments to each entrance, the house number for each entrance, and the location of the apartments (these latter locations are designated alphabetically, numerically, or geographically, according to the plan followed in leasing the apartments to tenants).

The cards are now ready for insertion in the file. When new cards are inserted, the old card for the previous customer at the same address is removed and destroyed if there is no discrepancy between the two cards other than in the customers' names. A constant record is maintained on these cards of all meter change work, meters turned off by collectors, etc. Completed meter-remove orders are routed to this file, so that the inactive cards might be removed.

All applications for service are sent to this reference file, where they are noted to show whether the application involves a turn-on or meter set. The card is also marked that a new application has been received. All turn-off orders are likewise routed to this file, where the meter number and size is posted on the order. The reference card is marked at the same time to show that the turn-off order has been issued. When an application or a turn-off order is sent to this file and the card is found noted that an order has been received previously, the new one is considered a duplicate.

Wasteful calls due to wrong addresses are often averted by the use of this file. To illustrate: When an application is received and no card is in the file for that address, the application is referred to the service-pipe record file for checking. If there is no record of a service pipe at the address given or a record of new building activities, the address is considered incorrect and the customer is contacted again. The same is true of turn-off orders. In this type of order, discrepancies are often found in the name or address. The difference is noted on the order. The fitter, when making the call, often finds that a name of a relative or friend was given instead of the customer's, or that the floor location or apartment number had been given incorrectly.

#### *Advantages*

An added advantage of this reference file is that it is of great value in classifying customers to the proper rate schedule. When new applications are received and referred to the file, it is often found that the previous occupant was billed at a rate different from the one indicated on the new application. The new application is immediately questioned and the customer is contacted again to see that he has not inadvertently given wrong information. When the cards indicate that service for the previous customer was discontinued because of delinquency in paying bills or for other credit reasons, the new applications are referred to the credit and collection department for checking. When the gas supply has been discontinued by the use of an ex-

tension plug in the service pipe or a free-wheel cap, this is noted on the cards in addition to the usual information. This is done so that applications or inquiries received subsequently may be referred to the proper division and the fitter notified of the special conditions. The file is also used frequently by the public contact division.

The time factor in service to customers is important. This meter-record reference file lists much of the basic information required by employees engaged in the handling of new applications, transfers, etc., and it is readily available. It is easy to see that the maintenance of the file is a good investment. It is considered one of the most important records in the company where it is used.

## Bill Investigation

By E. F. ALBERT

The Philadelphia Gas Works Company,  
Philadelphia, Pa.

THE customer's pocket-book in many instances is extraordinarily sensitive today. Living, as the average customer does, on a reduced income, it is necessary that he control his expenditures to the maximum degree so that he may balance his budget. While the charges for gas have normally been a small portion of his total monthly expenditures, and while the services which produce these charges add much to the convenience and are vitally necessary in the operation of his household, the gas bill is subjected to the closest scrutiny. If the times "were not out of joint," a monthly variation of 10 per cent in the gas bill would cause no comment; today such a variation often results in an inquiry to the Company.

We have in our Company a group of men who we believe are most successful in making these examinations and in finding a satisfactory settlement of the customer's inquiry. Of course, most of these men have had a wide experience and course of training in the various departments and divisions. It is not necessary to add that they are primarily selected because of their intelligence, personality, and tact, and also for their natural cleverness in uncovering, while on the customer's premises, the apparent reason for the fluctuation in gas consumption.

#### *Method Employed*

These customers' representatives are guided by a reasonable succession of steps in preparing and presenting the information they acquire on each case. These steps are:

1. Obtain data showing previous bills for at least a year, if possible, in order that charges for comparable seasons may be exhibited. The data includes the two indexes involved in the bill, their dates of reading and the average daily consumption during the interval. The representative is also provided with any recently completed shop orders.

2. On entering the premises, the customer is acquainted with the nature of the

inquiry and is encouraged to talk at length about it. The customer is assured the representative will endeavor to locate the cause of increase in gas consumption, if any.

#### *Meter Checking*

3. The present meter index is obtained and the daily average consumption since the last index is computed, and compared with the bill in question. The representative having ascertained what appliances are at that moment in use, and knowing their rated consumption, is able to estimate whether the dial hand on the meter is moving at a reasonable rate of speed or not. With his watch and with a chart converting dial points per minute into cubic feet per hour, he is able to determine the registration per hour, and thus he learns whether there is a proper relationship between the consumption and the registration. We have had frequent cases where this procedure has disclosed the fact that gas was then being consumed without the knowledge of the customer.

4. All gas appliances are then examined and their adjustment appraised and any necessary orders written for the shop to call and remedy matters.

5. If there is an automatic water heater on the premises, the representative takes the temperature of the hot water and also of the cold water. Both readings are taken from the respective spigots nearest the appliance. Enough hot water is run off to cause the automatic water heater's main burner to ignite, if not already ignited, and then the consumption measured at the meter. The proper consumption of the water heater as indicated by the B.t.u. reading posted on the heater informs the representative whether the consumption is reasonable or not.

The representative carries with him the average daily temperature for each day during the present year and, armed with this, he is able to point out what effect, if any, would follow through from the weather temperature to the earth temperature, to the water temperature, and then to the gas bill. It is usually obvious to the customer that an automatic water heater, while water is at a winter temperature, will require more gas to generate hot water than if the incoming water was at summer temperature.

#### *Flue Pipe Inspection*

6. The representative examines the flue pipe, if any, to the automatic gas water heater. He knows that flues set at an improper angle, flues improperly connected to the air vent, flues too long or too narrow in diameter, present operating factors which must be dealt with accordingly. He is particularly careful to note whether there are any holes in the flue, through which any accident hazards might be created. He observes whether there are any extremely long runs of hot water lines and the size thereof, and whether a hot water line passes an open cellar window, or runs underground, or in exposed places where heat losses would be high. He is particularly watchful for a return system of piping and for leaky spigots. If there is a furnace connection or a bucket-a-day heater connected with the automatic water heater, there is a possibility that the position of the valve would affect the consumption of gas.

7. The representative inquires about miscellaneous appliances and is alert in discovering some which the customer may have overlooked. He ascertains the methods by which the customer uses them and whether there could be any chances whereby such an appliance could be used without the customer's knowledge. There is always the possibility that, if the bill-payer is away a large part of the day, old folks, children, or tenants living on the premises may use



gas beyond the customer's knowledge. It is, therefore, necessary to ascertain who the occupants of the house are and to become acquainted with their habits in living. During the past winter there has been unusually cold weather. Customers have been particularly apt to use the gas range in the kitchen as a heater to augment any other kitchen heating. Often it takes adroit questioning to ascertain this fact, particularly the extent to which the range was used for this purpose. In many cases, the increase in consumption has been eliminated since the bill was received, because a natural household reaction to the master's complaint would be to make economies in the use of gas.

#### *Meter Performance Records*

The Company's record of the performance of its meters gives the representative a very real confidence in the accuracy of this device. Of course, the customer very often doubts the accuracy of the meter and insists that it be removed for test. We believe the meter should be removed, only as a last resort, as in many cases the factors which caused the high gas bill will be discovered by the investigator and will be either removed or modified by the customer, the result of which will be a reduction in the gas consumption. If the meter was removed immediately after the investigator's call, there might be some misconception as to the cause for the reduction in the gas bill that naturally follows. This confusion will arise because a doubt will be born in the customer's mind as to whether the ensuing lower consumption was due to the elimination of a faulty meter, or to conservation in the methods in operation. Of course, the customer is always invited to witness the test of any meter which the Company may remove.

If, after making a thorough investigation, the representative still finds the customer is dissatisfied, the latter is asked to consider some of the points brought out during the investigation and is informed that the representative will continue his investigation and will call back within a few days. It is surprising how often the customer admits, when the representative calls again, that the large gas bill must have been caused by housekeeping methods because the rate of usage has decreased since the representative's suggestions were adopted.

We believe that due to the observance of the foregoing general rules that the Company has been remarkably successful in settling cases of this kind.

#### **Chop Suey**

When a sale consists of an automatic water heater, chop suey stove, a bottle sterilizer and a high pressure gas boiler, it looks as though the title of this report has been aptly chosen. And besides, the advantages which the customer has derived in flexibility, ease of control, compactness of the equipment and freedom from trouble, are testimony to the truth of the well-known saying, "Damn smart, these Chinese."

## Gas Industry Loses Beloved Figure



William J. Welsh

**WILLIAM J. WELSH**, treasurer of the American Gas Association since 1929, died at his home, Grymes Hill, Staten Island, New York, on Saturday, September 8, after four days' illness.

At the time of his death Mr. Welsh was president of the New York and Richmond Gas Company, the Staten Island Savings Bank, and the Society of Gas Lighting.

Widely known in gas company and banking circles throughout the United States, Mr. Welsh was born in 1873 in Clifton, Staten Island. He had lived on Staten Island all his life. He received his education at Public School 14 at Stapleton and at Cooper Union Institute in Manhattan; he also took a course offered by the American Gas Light Association.

At the age of 15 he became a mechanic in the gas company of which his father, William, was general superintendent. Mr. Welsh's oldest son, Joseph J., is now superintendent of production in the plant of the New York and Richmond Gas Company, representing the third generation of the Welsh family to be associated with the gas industry on Staten Island.

Through a series of rapid promotions, starting in 1901, Mr. Welsh was placed in charge of sales of gas for domestic and industrial purposes. In 1903 he was promoted general superintendent, succeeding his father, who retired. In 1908 he was made vice-president and in 1912 elected president of the company.

In 1915 he was appointed a trustee of the Staten Island Savings Bank, the oldest savings institution on Staten Island, and in 1926 he was elected president of the bank. Mr. Welsh was the first two-term president of the Empire State Gas and Electric Association, serving in that capacity in 1929 and 1930. He was a member of the Staten Island Chamber of Commerce, the Richmond County Coun-

try Club, Rotary Club of Staten Island, the Staten Island Civic League, the Staten Island Institute of Arts and Sciences, Staten Island Club, Knights of Columbus, and was a trustee of the Staten Island Hospital.

Surviving are his widow, Mrs. Anna R. Welsh, and their children, Joseph J., Regina D., Veronica R., and William J., Jr.

#### *An Appreciation*

There must be something uncommon about an individual who is capable of inspiring feelings of confidence and respect, not only among his associates, but throughout a metropolitan community. William J. Welsh was no ordinary man and evidences of the general esteem in which he was held evoke no surprise in one who, for almost thirty years, was privileged to be counted a personal friend.

It would be correct to describe Mr. Welsh as a modest and unassuming gentleman. This characterization, admirable in itself, does not account for the outstanding place which he held in the affections of his friends. Kindly qualities of mind and heart were his, in full measure, and they played a part in creating affectionate regard. United with these qualities, however, was the possession of character to round out the complete personality of a gentleman.

If character be defined as "doing the right thing because it is right," William J. Welsh was a "man of character." Doing the right thing because it was right was never sacrificed for ease, for expediency or for obtaining favors. Imbued with a strong sense of justice, Mr. Welsh personified fair play in all his actions. Tolerant of the other fellow's viewpoint, he was willing to concede everything that was just and fair; he was helpful in every worth while cause, sympathetic and generous in his dealings, loyal to his friends and intolerant only of fraud and deception. A man of character has gone to his reward.

#### **Old Blimp Feeds Gas Mains**

**T**HE city of Ravenna, Ohio, within a few miles of Arkon, has an old blimp to thank for its uninterrupted gas service. A balloon bag, which once lifted the Goodyear baby blimp Resolute off the ground, was staked down on Frank Heckman's farm, filled with gas and was used as a reservoir while The East Ohio Gas Company tied in a new gas main.

A small amount of air in the mains caused a bit of trouble, but the balloon on the whole proved to be an efficient gas supply for most of the city. The bag was loaned for the purpose by the Goodyear Company.

## COMMERCIAL SECTION

N. T. SELLMAN, Chairman

J. W. WEST, Jr., Secretary

F. M. ROSENKRANS, Vice-Chairman

## Electric Cooking Competition

**B**Y action of the Managing Committee of the Commercial Section, the Domestic Range Committee was assigned the duty of dealing primarily with competition of electric ranges. It was recommended that the committee report upon the sales trends of electric competition and that it act as an exchange for sales plans which have been found successful by member gas companies in surmounting this competition.

This is a report upon activities of competitors in the electric field in promoting the use of electric ranges and electricity as a cooking fuel.

Prior to 1926 small progress was made in the field of cooking by electricity so that on January 1, 1926, the electric industry had sold only 370,000 electric ranges since their introduction in 1919.

Beginning with the year 1926, however, when the industry sold more than 100,000 ranges, consistent progress was shown each year until at the end of 1930 more than one million electric ranges had been sold.

The peak of electric range sales occurred in 1930 with 180,000 units followed by declines in 1931, 1932, and 1933 when 115,000, 60,000 and 50,000 ranges respectively were sold.

Gas range sales reached their peak in 1929 with a total sale of 1,600,000 units and declined to a low of 600,000 in 1932, followed by an increase to 720,000 units in 1933.

*Comparison of Range Sales*

The accompanying tables and graph give a comparison of annual gas and electric range sales during the period 1925-1933. Gas range statistics are from the American Gas Association and data for electric ranges are taken from the annual statistical issues of "Electrical Merchandising." It will be seen from the above that whereas gas range sales have outnumbered electric ranges on the average by eleven to one during the period covered, in 1933 there were approximately fourteen times as many gas ranges sold as electric.

Beginning in 1929 a marked trend toward modernization of gas ranges occurred. Console and table top models superseded the more conventional arrangements in public appeal. In due time these changes reflected themselves in the type and character of the electric ranges offered to the public, although it is still fair to say that the gas range industry is

By C. L. TREVITT

Chairman, Domestic Range Committee  
Community Natural Gas Company,  
Dallas, Texas

the style leader in the domestic cooking equipment field.

Simultaneously with these style changes, improvements were made in the top burner efficiency by some gas range manufacturers. Within the past six months a substantial number of manufacturers have again materially increased the efficiencies of the top burners of their ranges.

During 1931, the American Gas Association Testing Laboratory conducted an investigation of domestic cooking by gas and by electricity. At that time it was found that 2.30 B.t.u. in the form of gas fuel were required to do the same cooking operations as were necessary for one B.t.u. with electricity. The result of the recent improvements in top burner efficiencies on many gas ranges has been to lower this ratio to about 1.8 or the equivalent of about 12 cu.ft. of manufactured gas of 530 B.t.u. or 6 cu.ft. of natural gas of 1050 B.t.u. required for each kw.hr. of electricity used as a cooking fuel.

*Cooking Rates*

In manufactured gas territory, the present average price to cooking customers for 530 B.t.u. gas is approximately \$1.14 per M cu.ft. In territory served with natural gas the rate applicable to cooking customers averages about \$.80 per M cu.ft. for 1050 B.t.u. gas. For those electric companies who are actively promoting the use of electric ranges, the average rate for cooking is approximately 2.75¢ per kw.hr.

In these territories where electric activ-

ities are aggressive, using modern equipment, the cost of cooking with electricity would average two times the cost of cooking with manufactured gas and five and one-half times that of cooking with natural gas. In other territories, the cost ratios are even more favorable to gas.

In 1933 at the request of and with the promise of adequate financial support by the National Electric Manufacturers Association, the National Electric Council was organized by the National Electric Light Association to promote the acceptance of electric ranges and electric cooking. Initial efforts were directed toward the organization of regional and local cookery councils to sponsor a nation-wide cooperative movement to promote the sale of electric cookery.

*Electric Cookery Councils*

A complete program for the inauguration of local electric cookery councils, representative of contractors, department stores, distributors, electric dealers, furniture dealers, hardware stores, utilities and others, was adopted. One hundred and sixty-five local cookery councils were formed in forty-two states, representing an estimated coverage of approximately five and one-half million domestic electric customers. In addition to extensive field work, an electric range contest was conducted during April, May and June, 1933, accompanied by an advertising program confined to electrical trade publications. Retail outlets for electric ranges were conservatively estimated to have been increased by 50% in 1933 in those territories where cookery councils were formed.

Despite these developments the sale of electric ranges for the year 1933 was

GAS RANGE SALES 1925-1933

Year	Domestic Gas Customers at End of Year	Gas Range Sales*	Gas Range Sales per Thousand Domestic Customers
1925	12,144,000	1,406,000	115.7
1926	12,732,000	1,480,000	116.2
1927	13,313,000	1,560,000	117.2
1928	14,041,100	1,580,000	112.5
1929	14,635,800	1,602,000	109.3
1930	14,969,400	1,400,000	93.5
1931	15,015,900	960,000	63.9
1932	14,506,900	600,000	41.4
1933	14,472,600	720,000	49.7

Notes: \*These figures are actually gas range production. Data for 1925, 1927, 1929 and 1931 are from U. S. Census; data for 1932 and 1933 are estimates based on reports to A. G. A.; data for 1926, 1928 and 1930 are interpolated.

only 50,000, the lowest record during the period of years covered by the accompanying tables.

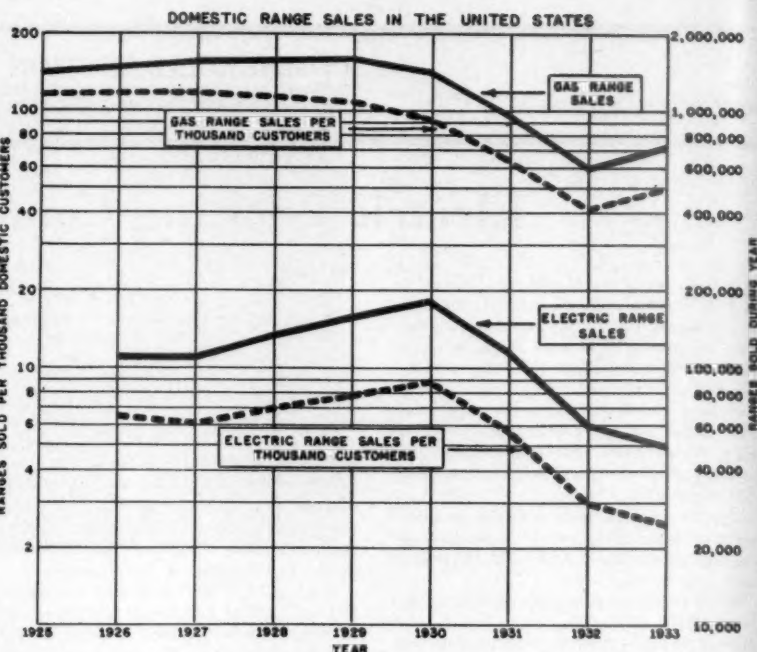
With the establishment of the Tennessee Valley Authority in the fall of 1933 a new factor entered the picture. In preliminary announcements, the director of the Tennessee Valley Authority stated that efforts would be made to persuade the manufacturers of electrical household equipment to offer electric ranges, water heaters and refrigerators at new and unusually low prices in return for the financing and sales promotion of these appliances by the Electric Home and Farm Authority.

#### EHFA Activities

In March, 1934, the dissolution of the National Electric Cookery Council was announced, the statement being made that the electric equipment manufacturers alleged it would be impossible to give further support to the National Electric Cookery Council in view of the low appliance prices requested by the Electric Home and Farm Authority and because of general business conditions. Other announcements indicated that the equipment manufacturers had decided to focus all their ammunition and efforts with those of the EHFA to promote the completely equipped electric home in the course of its operation in the Tennessee Valley and/or elsewhere. For report of first year's operations of the Tennessee Valley Authority see American Gas Association Information Service Letter No. 118.

On February 7, Tupelo, Mississippi, began distributing Tennessee Valley Authority current through its municipal electric plant. Domestic rates by agreement with the Tennessee Valley Authority in such cases are:

First 50 kw.hr.	\$.03	per kw.hr.
Next 150 kw.hr.	.02	per kw.hr.
Next 200 kw.hr.	.01	per kw.hr.
all over 400 kw.hr.	.004	per kw.hr.



#### Minimum monthly bill

5 ampere meter	75¢
15 ampere meter	\$1.00
50 ampere meter	\$1.50

Where privately owned electric companies are cooperating with the Tennessee Valley Authority in the promotion of the sale of electric appliances, the domestic electric rates approved by the Authority are not quite so low as those outlined above.

On May 22, a special exhibition of electrical ranges, water heaters and refrigerators bearing the approval of the Tennessee Valley Authority was held at Tupelo. Simultaneously, privately owned power companies, in cooperation with the Tennessee Valley Authority, announced

the availability of these appliances in sections of Tennessee and Georgia.

#### TVA Prices

Minimum specifications for the electric appliances approved by the Tennessee Valley Authority and made by some twenty odd electric appliance manufacturers at prices 25% to 35% lower than those formerly prevailing may be found in the March issue of *Electrical Merchandising*.

TVA electric refrigerators are priced at \$79.50 cash, or \$94.50 on terms of \$3.50 down and \$2.54 a month for three years. Cooperating electric companies charge \$4.00 for installing an outlet where one is necessary. Ranges approved by the TVA

#### ELECTRIC RANGE SALES AND SATURATION, 1926-1933

Year	Number of Homes Receiving Electric Service at End of Year*	Regular Type Electric Ranges			Number of Regular Type Electric Ranges Sold Per Thousand Home Customers	Number of Electric Ranges in Use at End of Year	Per Cent Saturation
		Number Sold During Year	Retail Value	Average Retail Value Per Range			
1926	16,825,234	110,000	\$16,500,000	\$150	6.5	480,000	2.85
1927	18,089,284	110,000	17,600,000	160	6.1	590,000	3.26
1928	19,254,524	135,000	22,175,000	164	7.0	725,000	3.77
1929	20,145,774	158,000	26,070,000	165	7.8	875,000	4.34
1930	20,530,248	180,000	27,000,000	150	8.8	1,020,000	4.97
1931	20,356,804	115,000	18,975,000	165	5.7	1,095,000	5.38
1932	20,054,256	60,000	9,000,000	150	3.0	1,100,000	5.49
1933	20,210,134	50,000	7,100,000	142	2.5	1,148,000	5.68

Notes: \*Represents total of residential and farm customers receiving electric service from public utilities. Does not include farms with individual electric plants.

Customer data from E. E. I. Statistical Bulletins No. 8 and 9 and preliminary report for 1933. Data on range sales and ranges in use are estimates published by "Electrical Merchandising."



are \$75.50 cash, or \$90.50 on terms of \$35.50 down and \$2.41 a month over a three-year period. Water heaters are \$60.50 cash, or \$71.75 on terms of \$2.50 down payment and \$2.31 per month over a thirty-month period. If refrigerator and range are bought simultaneously, the cash price is \$155, the down payment is \$5.00 and \$3.85 per month, over a period of forty-eight months. More recently special combined ranges and refrigerators are available at somewhat lower first cost than when standard units are purchased simultaneously. If refrigerator, range and water heater are bought simultaneously, cash price is \$215.15 or a down payment of \$6.50 and a monthly payment of \$5.33 for a period of forty-eight months. Additional charges are made for connection of range and for pressure relief valve on water heater.

The estimated monthly electric consumption of these appliances is:

Refrigerators	65 kw.hr.
Ranges	165 kw.hr.
Water Heaters	300 kw.hr.

TVA approved electric appliances may be sold by a privately owned electric company wherever the domestic electric rates of the company are found satisfactory by the Tennessee Valley Authority.

The official statement of the significance of the TVA emblem reads:

"Approval by the EHFA of an appliance and the presence of the TVA mark of approval on the product means that the quality of the appliance is acceptable, the price reasonable, and the domestic electric rates where it is to be used are low enough to conform to the power policy of the TVA."

#### Credit Policy

Once the sale of a TVA appliance is made on deferred terms, the customer's paper is accepted from the dealer by the utility. The Electric Home and Farm Authority reimburses the utility for the customer's paper. It is understood that on default by customer, the dealer is required to repurchase the defaulted paper and that failure of the dealer to repurchase voids his sales agreement with the Authority. Manufacturer must then repurchase from Authority the paper in default at a price equal to the unpaid balance of its face amount, less any unearned portion of finance charges. The utility company will then repossess product for the manufacturer, holding it without expense for sixty days and agreeing to sell repossessed appliance. Collections are made through the local utility.

Financing charges offered by the Electric Home and Farm Authority represent a cut in the cost of financing of substantially 50% from present rates.

Details of the promotional and educational work to be done by the Electric Home and Farm Authority have not yet been announced. One million dollars is available for these purposes and it is understood that approximately \$250,000

will be spent for promotion during the first year. An advertising agency is now surveying the field and preparing plans. In the meanwhile, a force of twenty-five home service workers has been enrolled to develop a program which would include aid in cooking, home management, and selection, operation and care of domestic electric appliances. In Tupelo, Mississippi, where TVA appliances were first made available, nineteen EHFA representatives were engaged in promoting the purchase of electrical equipment. Tupelo has approximately 1200 electric customers. The Tupelo Gas Company has approximately 625 gas customers with two gas appliance salesmen.

Although the Electric Home and Farm Authority is officially described as an agency of the Tennessee Valley Authority whose activities are limited to the Tennessee Valley area, the activities of the Electric Home and Farm Authority are unlimited in regional scope by terms of its Articles of Incorporation. Therefore, if the financing and promotion of the sale of electric appliances with Government money should prove successful in the Tennessee Valley area, there is no reason why the same should not be extended to other areas. Indeed this has already been officially predicted.

#### Regional Electric Range Saturations

Tennessee newspapers for Monday, June 4, announced that since May 22, six thousand electric ranges, refrigerators and water heaters had been sold as a result of the Electric Home and Farm Authority's opening campaign.

The true picture of electric range competition cannot be gained from a simple study of the ranges sold annually and the fact that 5.68% of the 20,210,000 homes

receiving electric service at the end of the year 1933 were using electric ranges. These figures must be broken down into smaller areas in order to afford significant guideposts to the gas industry.

Furthermore, no data have been published by the electric industry which would indicate the extent to which these electric ranges have actually displaced gas ranges or preceded the use of gas ranges in homes within gas-served area, and no data on this point from gas companies have yet been made available to the American Gas Association.

The annual range surveys of the magazine "Electric Light and Power" appear to furnish the most detailed information on this subject. The seventh Annual Electric Range Survey, published in August, 1933, reports on the sales methods and results of 96 electric companies in the United States in the field of electric cooking promotion. The average saturation of electric ranges for these companies, covering 37% of the total customers in the United States, was 7.5% and the sales of these companies for the year 1932 totalled 30,864 or approximately one-half of the electric range sales for that year. The total ranges reported installed by these companies on April 1, 1934, was 556,748 or approximately one-half the total reported for the United States.

Some of the electric companies which reported better than average saturations are given below.

#### Sales Methods

Gas companies will be interested in the sales methods which have been used by the 96 electric companies representing this survey.

Approximately 75% of these companies stated that they encouraged employee

Company	States	Saturation
Alabama Power Co.	Alabama	20.3%
Central Arizona Lt. & Pr. Co.	Arizona	9.9%
Jonesboro Lt. and Pr. Plant	Arkansas	14.2%
Pacific Gas and Electric Co.	California	10.2%
San Joaquin Lt. & Pr. Corp.	California	15.4%
Georgia Power Company	Georgia	14.4%
Central Illinois Pub. Serv. Co.	Illinois	10.7%
Kansas Power Company	Kansas	11.2%
Consolidated Gas Electric Light and Power Co. of Baltimore	Maryland (rural)	25.9%
Minnesota Power & Light Co.	Minnesota	10.6%
Greenwood Light & Power Co.	Mississippi	25.6%
Kansas City Power & Light Co.	Missouri-Kan.	10.3%
Niagara Electric Service Corp.	New York	27.1%
North Carolina Pr. & Lt. Co.	No. Carolina	21.9%
California-Oregon Power Co.	Calif.-Ore.	31.7%
Pacific Power & Light Co.	Ore.-Wash.	19.3%
Portland Gen. Electric Co.	Ore.-Wash.	21.1%
Northwestern Pub. Serv. Co.	Nebraska-So. Dakota	9.1%
Idaho Power Company	Idaho	47.1%
Texas-Louisiana Power Co.	Tex., La., New Mexico, Ky., Ariz., Okla.	24.4%
West Texas Utilities Company	Texas	24.6%
Virginia Public Service Co.	Va.-West Va.	15.6%
Puget Sound Pr. & Lt. Co.	Washington	34.2%
Seattle Dept. of Lighting	Washington	30.1%
Tacoma Dept. of Public Util.	Washington	30.5%
Washington Water Power Co.	Wash.-Ida.	29.9%
Winnipeg Hydro-Elec. System	Manitoba, Can.	58.5%

selling of electric ranges, and practically all companies encourage employee prospect work of direct selling. Less than 5% gave premiums in order to accelerate electric range sales but more than half offered allowances for the customer's old range. Twenty per cent gave cash discounts and all offered ranges on terms with carrying charges from one-half of 1% per month to 14% for a twelve months' period.

Practically every company held electric range demonstrations and two-thirds of them depended upon the manufacturer for assistance in furnishing a demonstrator. Twenty-five per cent of the companies carried on continuous electric range activities, while the remainder held from 1 to 4 campaigns annually. In 85% of the companies, range sales were made by regular salesmen while in 20% of the companies, sales were made by range specialists, the overlap being due to those companies which employed both methods. Five companies employed part-time range salesmen for the most part in connection with their regular sales forces.

Salesmen's compensation was confined to a salary by eleven companies, while the majority paid salary, commission and bonuses varying from \$25 to \$125 salary a month, plus commissions of 5% to 15%, and bonuses figured in the main on a load building basis.

In the great majority of cases, the range manufacturer tied in with the utilities advertising, furnished representatives to assist during the activity, train the salesmen and conduct cooking schools. The majority of companies included wiring cost in the selling price of the range, the wiring being done for the company by electrical contractors. In a number of cases it is indicated that the company capitalized these wiring costs.

Only a small percentage of the completely non-automatic electric range is represented in these territories, approximately 53% having automatic oven temperature control and 40% having both automatic time and temperature control.

#### *Methods of Meeting Competition*

The membership of the Domestic Range Committee of the American Gas Association has been selected from gas companies located in communities where electric cooking competition is active. Each member of the committee has prepared an outline of the competitive situation in his territory with a summary of the sales and advertising methods which have been recently utilized with an indication of the results that have followed in meeting this competition.

Accredited delegates of member gas companies may secure copy of this data by addressing their request to the Secretary of the Commercial Section, Association Headquarters.

Gas range sales per thousand domestic gas customers have varied since 1929 from a high of 117 to a low of 41 and

for the year 1933 increased to the figure of 49 ranges sold per thousand customers. In all probability a normal year's activity would represent approximately 100 range sales per thousand customers. It is evident, therefore, that the sales during 1933 were only 50% of this normal figure and that, in addition, purchases have been delayed during the past four years to the extent of approximately two million gas ranges.

As will be seen from the list of companies given, the electric competitive situation is still a spotty one, concentrated in its high saturations in relatively few sections of the country. A two-phase action is necessary to meet this situation. First, a continued aggressive fight by the companies located in these particular sections to prevent inroads of electric ranges in the areas served with gas. Second, a national campaign on the part of all gas companies to stimulate early purchase on the part of the two million customers whose normal purchases have clearly been delayed since 1930 and to bring about a replacement of all obsolete ranges on their lines.

The Domestic Range Committee urges member companies facing keen competition to make full use of its services and experience on this subject. The committee further believes that during the next twelve months the American Gas Association should sponsor cooperatively with the manufacturers of gas ranges a national gas range replacement sales contest to stimulate all gas companies to the end that obsolete gas ranges may be replaced and increased competition from electric ranges and other cooking equipment may be thus stopped.

The Domestic Range Committee will propose such a contest to the Executive Board of the American Gas Association at an appropriate time in the near future. In the meanwhile, it will be of assistance to the committee if representatives of each member gas and manufacturer company would forward their suggestions to the committee as to the time and character of such a contest. With reasonable support from gas companies and manufacturers of modern gas ranges, the unit

cost of such a contest could be kept exceedingly small and still permit the offering of prizes which would stimulate every sales department and salesman in doing his part to advance gas ranges and gas service as the most modern method of cooking.

## Los Angeles Employees Retire

**T**WENTY-two employees of the Los Angeles Gas and Electric Corporation, with service records up to 44 years, retired on September 1, in accordance with the company's pension and benefit plan, according to an announcement by Addison B. Day, president and general manager.

Oldest in point of service is S. E. Bangerter who has seen continuous service with the company for 44 years. C. A. Bartlett has been affiliated for nearly 39 years.

In appreciation for the part they have played in the development of the company, Mr. Day said:

"It has been our policy for many years to pension employees by reason of age or physical disability after satisfactory periods of service. During this time, including the 22 who retire today, a total of 102 persons have received such annuity pensions which are guaranteed by a prominent life insurance company."

Mr. Day, himself, who started with the company as a gas appliance salesman in 1895, has a 40-year record of continuous service with the Los Angeles Gas and Electric Corporation. Rising through the ranks, he became president and general manager in 1928.

Including Messrs. Bangerter and Bartlett, those who retired are: J. J. Geiszel, A. J. Knox, Frank Maple, R. J. Hanlon, C. R. Parsons, T. H. Dunk, Frank Mackel, W. W. Smith, B. M. Sawyer, Warren Stockwell, J. F. Penn, R. F. Mewmaw, Philip Knell, George Hansen, A. B. Forman, Edward Green, Robert Rutherford, H. C. Werk, Louis La Barca, and Cadmus Crabill.

## London Gas Officials Complete U. S. Tour

**T**HREE officials of The Gas Light and Coke Company of London, England, recently completed a tour of the United States for the purpose of observing gas utility operation in this country. They were Stephen Lacey, controller of gas sales, Russell W. Lowman, assistant gas sales manager, and A. P. Ryan, in charge of the company's publicity department.

These men spent considerable time at Association Headquarters and also visited the Laboratory at Cleveland. While in the metropolitan New York area, they met various sales executives and made a study of housing conditions as compared with London.

A primary interest was the study of modern domestic gas appliances with the aim of securing information and data to stimulate the production of more convenient and attractive appliances in their own country. To this end, they purchased a number of different makes and representative types of appliances and arranged to have them shipped to London for further study.

Among the cities visited during the tour were: Baltimore, Buffalo, Chicago, Cleveland, Rochester, San Francisco, Los Angeles, Seattle and Washington, D. C.

## HOME SERVICE COMMITTEE

DOROTHY E. SHANK, Chairman

JESSIE McQUEEN, Secretary

## Importance of Survey Calls As Sales Aids



Mrs. Shelton

**H**OME service departments which have used, and are using, the survey call, class it as one of the most important, if not the most important, of all calls in customers' homes.

This call is not new; it was originally planned by companies years ago to familiarize

people with the possibilities of gas as a cooking fuel and to locate homes where coal, wood and oil stoves were used. The first of these calls was made by a salesman who went from house to house and visited with the housewife, telling her of the advantages of gas fuel.

Companies grew and progressed with the result that prospects were easier to get. The salesman acquired a prospect file and was kept busy, so survey calls were discontinued by salesmen, although they are as productive today as they were years ago. True, we do not find many wood and coal stoves, but we do locate obsolete equipment which amounts to the same thing when a replacement order is the result.

The survey call of yesterday was referred to as "pushing door bells." Today it is the same call gone Modern. "Survey" is a very broad and general term but to us in home service work, it means to inspect or examine customers' equipment, keeping a record of appliances in use and those considered obsolete. Last, but most important, it means turning in prospects.

*Objectives*

For years home service workers have progressed steadily with four major objectives in mind:

1. Improving customer relations.
2. Building and retaining the domestic load.
3. Promoting the sale of appliances.
4. Stimulating the further use of equipment already installed.

The first objective and one of great importance involves our place in the sphere of customer relations. A trained home service worker who is well informed regarding her company's policies can create more good-will than any other member of the organization. If questions come up concerning rates or other problems, which she does not feel qualified to

By MRS. LOIS C. SHELTON

Virginia Electric & Power Company,  
Norfolk, Virginia

answer, the home service department can be the clearing house through which such questions are handled. Customers raising such questions should be directed to the proper employee who will endeavor to correct diplomatically any complaint or misunderstanding.

More good-will results from locating and correcting appliance complaints that might otherwise go unnoticed. Personal contact again enters the picture.

*Building the Domestic Load*

The second objective—and we are all vitally interested in this—is building and retaining the domestic load.

Most women should be refreshed, especially the home-body who never attends cooking schools or group meetings. The only way to catch her is to knock on her door and pay her a little visit; present her with a bevy of recipes, tested and approved, and talk about them in a friendly, personal way. If possible, get into her kitchen and offer her any reasonable assistance in cooking problems.

During such a call a check is made on the amount of cooking done and the size of the family. The customer is then introduced to the home service department recipe service and invited to visit the gas company, or if she is the stay-at-home type, another call is made.

New and attractive tested recipes have proven most important and effective when distributed on the survey call. If fifty attractive recipes, with an average cooking time of approximately forty minutes, are presented at each call—and fifteen of these calls can be made easily in one day—at the end of the day there will be fifteen women Kitchen Conscious. If properly met, they will use their new recipes and, thereby, add to the total consumption of gas. It is not expected that each customer will use all of these recipes, but a check of monthly bills has proven conclusively the value of survey calls.

Secretly, the third objective, "Promoting the Sale of Appliances," should have headed the list but as in many other cases the most important thing does not always come first. It is sometimes necessary to work up to greater things and that is just what this call does. Here is an example of the method used—"Good

Morning," "We have a real service to offer," "How can we help you with your old equipment?", and then "Of course, with modern appliances this same amount of food could be prepared in much less time with greater ease and efficiency"—thus working up to promoting the sale of appliances.

A splendid help on the survey call is the combination gas appliance advertising and recipe booklet called "The New Technique in Kitchen Work," published by the American Gas Association and available at reasonable cost. This booklet serves a definite purpose. After entering the home and surveying the kitchen, a copy of this book should be left wherever there is a need for new appliances. Each time the customer uses a recipe out of it she is reminded of the new range, refrigerator or water heater. The cost of this book would not permit leaving one on every call and the home economist must judge the advisability of presenting them.

A record kept in the home service department of the Virginia Electric & Power Company proves that sales are made every day as a result of these contacts. As the report cards are handed in, the obsolete equipment is listed according to age and make. The cases are watched carefully to ascertain the proper time to mail broadsides or regulation literature and in order for the salesman to make his call. By close cooperation between sales and home service this work has proven most productive.

*Increasing Consumption*

We know from years of experience in the merchandising field that a woman can make the first contact with greater ease and, due to her natural curiosity, get all the necessary information needed to complete the survey. True, home service workers will not actually make sales, but they scout for them.

Stimulating the use of old appliances or a back-to-the-kitchen movement is our fourth objective.

Again this call brings close contact with the customer who buys her bread and cake, always serves chops and other quickly prepared fried foods, or tells you—"Oh I haven't used my oven twice since Christmas because I never bake." What a marvelous opportunity for us to have a picture-book story ready. Suggest—"fifteen-minute meals," then—"half-hour dinners"—on up to—"that gorgeous

(Continued on page 371)



## INDUSTRIAL GAS SECTION

F. B. JONES, Chairman

C. W. BERGHORN, Secretary

J. F. QUINN, Vice-Chairman

## Greater Use of Hotel and Restaurant Advertising Urged

THE appearance of October advertisements will mark the end of the second three months' advertising being sponsored nationally by the Hotel and Restaurant Committee of the Industrial Gas Section. The accompanying illustration is the sixth in this series of advertisements. It will appear in the October issues of Hotel Management, Restaurant Management and American Restaurant.

The purpose of these advertisements is to present to the readers of the leading publications in the hotel and restaurant field these four important facts:

1. Modern gas service cuts cooking costs and improves service.
2. Results in kitchens everywhere prove this beyond question.
3. A survey of the readers' kitchens may disclose similar savings for them.
4. A survey of the equipment in use will be made without cost or obligation.

It is suggested by the committee that these advertisements make good mailing pieces and should be utilized as such by gas companies. Reprints can be supplied at \$1.50 per hundred without imprints. If the company's name is imprinted in place of the American Gas Association signature, cost will be \$7.50 per hundred for the first hundred and \$1.50 for each additional hundred.

In an announcement to the industry, the committee makes the following recommendations for the use of these advertisements.

Use reprints of these advertisements as mailing pieces or as enclosures in a series of letters to the hotels, restaurants and other commercial kitchens in the area served. Inform these operators of the results that have been obtained in kitchens that have been modernized with up-to-date insulated, heat-controlled gas equipment.

Offer them a cost cutting survey to show in advance what a change to modern gas equipment will accomplish. Show them that the cost of modern gas equipment is small compared with the definite dollars and cents benefits to be derived therefrom. Invite them into display rooms or into modernized kitchens to see new appliances in operation.

Run these advertisements in local or regional hotel and restaurant publications. Following is a list of the better known publications of this type: Hotel and Restaurant News, Boston, Mass. (Official organ of the New England Hotel Association);



• Down goes cost and up goes service when cooking equipment is modernized. Gas appliances with insulation and automatic heat control are today demonstrating their all 'round advantages in actual use.

Leading hotels and restaurants report that they are saving not only on fuel but in other important ways.

Meat shrinkage is greatly reduced, more servings obtained per roast. Quality is raised to a new level of uniformity. Working conditions are improved. Service is quickened.

### Phone your Gas Company for a Cooking-Cost Survey

Just what will modern gas equipment do for you? To what extent will it cut your costs. In what ways will it improve your service?

Get the answers to these questions without delay. Call up your gas company. Ask for a cooking-cost engineer. He will come to your kitchen, study your needs, and then give you a definite report in writing. No charge or obligation of any kind—and no guesswork.

HOTEL AND RESTAURANT COMMITTEE  
AMERICAN GAS ASSOCIATION

Reproduction of advertisement which will appear in October issues of hotel and restaurant trade papers

Midwest Hotel Reporter, Omaha, Neb.; Tavern Talk, Kansas City, Mo.; Texas Hotel News, San Antonio, Texas; Southern Hotel Journal, Atlanta, Ga. (Official organ of the Southern Hotel Association); Food and Service, Chicago, Ill. (Metropol-

itan section); Modern Restaurant, Chicago, Ill. (Official organ of the Chicago Association of Restaurateurs); The Restaurant Man, New York, N. Y.

Electrotypes of the complete advertisements will be supplied at cost.

### For Example



SAVINGS IN EXCESS OF 21%. Chef, warm in his praise of these modern cooking devices.  
—Parker House, Boston



KITCHEN 18° TO 30° COOLER. New gas equipment will pay for itself in 18 months.  
—Roosevelt's, New York

Your gas company can tell you what modern gas equipment is doing in kitchens in your vicinity... ask them.

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Heat Treating  
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## METAL MELTING—D

### Brass D-1

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### Stereotype D-2

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Mo. .... Sales Experiences..... Sept. 1934 p. 305  
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lations.)

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### Miscellaneous F-4

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- Foundry .....Humidity affects core strengthJuly 1934 p. 14  
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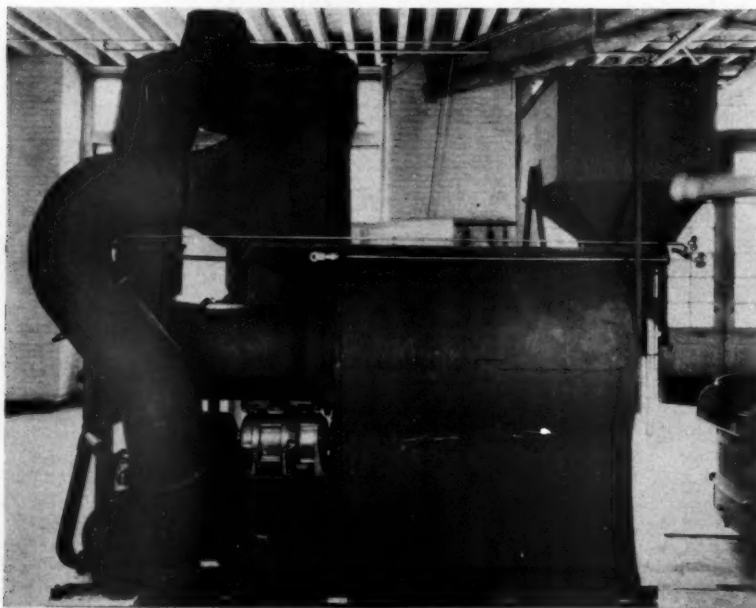
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## TEXTILE INDUSTRY—K

- Industrial Gas..Wet processing in a modern gas dryer.....Apr. 1934 p. 10  
 (Time for drying "front pads" for suits reduced to one hour.)

## New Gas Coffee Roaster Developed



ONE of the first new developments in the commercial processing of coffee which has appeared over a period of years, is the introduction of the Thermal coffee roaster by Jabez Burns & Sons Inc., New York City. This roaster utilizes a new method of heat treatment and is the result of intensive investigation and research.

A laboratory study was made in which it was discovered that the coffee bean could be roasted to a uniform color, from center to surface, without baking if the temperature of the heating medium could be dras-

tically reduced without increasing the time required to complete a roast.

Since the temperature of the heating medium had to be reduced, it was obviously necessary to increase the quantity of the medium that would pass through the mass of coffee within the limited time—so that the full quota of heat units would be supplied.

This was accomplished in the Thermal gas roaster, by forcing the heated gases more rapidly through the cylinder; that is, by passing a greater volume per minute

through the coffee to compensate for the lower temperature.

If this draft were drawn in from the room and blown out through the roof, the wasted heat would increase the cost of roasting. Therefore, the gases are returned to the burner chamber, after removing all chaff, and recirculated through a closed system—"bleeding off" through an outlet pipe only the excess, equal to the vapors given off by the coffee and those produced by combustion at the burner.

As soon as it is liberated, chaff is removed from the roasting cylinder through the cylinder perforations and through a special suction opening in the front head. The low roasting temperature is not sufficient to char this chaff in the cylinder and it is separated by a new type of cyclone collector before the roaster gases are returned to the burner chamber.

The Thermal roaster consists of a perforated roasting cylinder, substantially like that of existing machines, except that the burner is placed in a separate chamber behind the roaster. The cylinder is completely enclosed in an insulated metal jacket and suction openings for the recirculating system are provided along the bottom of the jacket and at the front head.

The heating medium, tempered to the proper degree in the burner chamber by mixture with the relatively cooler gases returned by recirculation, enters the center of the roasting cylinder at the back. Suitable means are provided to control the rate or circulation—and hence the temperature within the cylinder—and to permit the escape of excess gases.

The fan, ducts and chaff collector in the recirculating system are compactly arranged and fully insulated. Since the collector, to be practical, must be set close to the roaster and must be very much smaller than those now employed, a new type of cyclone separator was developed for this purpose.



## MANUFACTURERS' SECTION

JOHN A. FRY, Chairman J. SCOTT FOWLER, Vice-Chairman C. W. BERGHORN, Secretary MERRILL N. DAVIS, Vice-Chairman

# Gas Flood Lighting

By MORLAN J. GRANDBOIS

General Gas Light Co., Kalamazoo, Mich.



Gas lamps above the display windows of the Grand Rapids Gas Light Co., Grand Rapids, Mich.

THE outstanding feature of the June meeting of Michigan gas men was the flood lighting of the Grand Rapids Gas Light Company's office building. Fifteen thousand candle power of light dwarfed into insignificance the ordinary street illumination and made the building the center of attraction in that part of the city.

It was the first public display of the new Humphrey super power gas lamps and marked the entrance of the American gas industry into a promising field of commercial activity.

Flood lighting is essentially long-hour business; it appeals to those in position to profit by the brilliant display of their locations far into the night. Its cost is not measured grudgingly, but in terms of advertising value.

It is not given to all to occupy the most prominent corner, and they who do pay handsomely for the privilege. But flood lighting will bring into prominence any site along the trade arteries of a city. Sell publicity value in all approaches to the prospect.

Electric flood lighting because of the glaring intensity of the fine filaments of the lamps is unpleasant unless deeply

shaded. Placing of the lighting units is often much of a task, frequently space must be rented on which to install the system.

To our mind, there is added value where the flood of light may extend into the street as well as upon the building. Especially is this true in attracting the attention of fast-moving automobile riders. With the roadway showing no unusual appearance, there is apt to be just a flash of brightness that makes no impression, but no one misses the location that shines its brilliance equally upon the pavement.

The gas lamps radiating light from a relatively large incandescent surface are not trying to the eyes and require no shading. The effect is that of pleasant, bright sunshine.

Unbiased tests by the Electrical Testing Laboratories of New York City show an illumination of 3750 candles along the 60° angle above perpendicular. This is an ideal distribution for general display effect.

Production having been limited, no general sales effort has been made by the manufacturers. The demand created by word of praise sent one gas man by another has taken the output. Entering an entirely

new field, it has been considered wise to let consumer reaction manifest itself without pressure to induce sales.

The recommendation to all inquiring gas companies has been that they flood light their own premises first.

In Battle Creek, Michigan, a Saturday night initial display at the Gas Building brought an immediate order to flood light a gas service station. The story of this development is most interesting. "Gas Alley" was the first job; two 3000 candle power lamps were installed and are operated all night. Business increased and "Gas Alley" is distinctly on the map.

Five lamps were placed on a larger station having frontage on two streets. So impressive was this installation that the manager of the largest accessory and tire store in the city promptly called on the gas company and placed an order for lamps.

From another station with two lamps, a 15% increase in business is reported. This job especially pleases the neighbors across the street, who now read their newspaper by the station's light. The proprietor figures that his cost for gas will be about \$20 per month; electricity for pumps, etc., \$3. His all-electric bill has been around \$24 per month. At practically the same cost, the lighting has been doubled; this extra light brought the 15% increase in sales.



The Peoples Gas Light & Coke Co., Laabie St. Office, Chicago, Ill.



*Mioco Service Station, Kalamazoo, Mich.*

For the combination gas and electric company, it will be good reading that the gas flood lighting of a service station in another city brought a prompt demand from a neighboring station a block distant for almost double wattage in electric lamps.

The flood lighting of the entrance to the Gas Industry Building at the Century of Progress Fair in Chicago is attracting most favorable notice. The Peoples Gas Light & Coke Co., of Chicago, wishing a more permanent exhibit, have just made a handsome installation at their Larrabee Street offices on the North Side; others will probably follow.

Lighting is preeminently a self-nourishing thing, it grows by its own effect. What was brilliant itself but a few years ago is commonplace today. Alert business men jump at the chance to make their places distinctive. The new gas lamps will interest them.

Already plans are being worked out for rental systems to cover use and servicing of the flood lighting, and as a long-hour, off-peak load special rates are under study.

Electricity has profited much by its spectacular appeal to the public; gas can now go several paces ahead with its startlingly compelling bursts of brilliance.

Just as an advertising force for our own business, the flood lighting alone of gas buildings offers tremendous opportunity.

The up-to-date service that gas renders can be brought out most convincingly in the light of this last-minute development of a progressive industry.

Beyond and away from our own households, there is a big load ahead in the general commercial field. This is clearly established by the success attending the introduction of high power gas lighting in the limited area to which it has been offered.

Study the photographs, note how prominently the various places stand out from the surrounding darkness. Pictures tell the story.

No effort has been made to go into technical details in this article; the manufacturers will gladly supply full information.

## Norge Buys Detroit Vapor Stove

THE assets of the Detroit Vapor Stove Company and its subsidiary, situated in Detroit, Mich., have been sold to the Norge Corporation, Detroit, for \$600,000, according to a recent announcement by H. H. Whittingham, secretary of the Norge Corporation.

Norge is assuming all liabilities excepting all Federal income tax liability of the company and its subsidiary, and the obligation of the principal amount and accrued and unpaid interest of the so-called creditor's extension notes.

## Pittsburgh House Heating Campaign

EQUITABLE GAS COMPANY, Pittsburgh, is cooperating with other gas companies in the Pittsburgh district in a major gas conversion burner house heating campaign which started July 16 and will continue until November 1. The company will contact a selected list of 15,000 gas house heating prospects.

An extensive newspaper advertising, radio and direct mail promotional campaign has been launched, featuring especially a nine months' demonstration trial offer under a \$2 a month rental plan which will precede a lease purchase contract for the equipment.

Equitable Gas Company plans to use 100,000 mailing pieces to circularize its customers, telling of the advantages of heating with gas. Special displays will be

erected in the main office building and at various other points on property of the Philadelphia Company system to increase support of employees and obtain public interest.

Cooperation is being extended to all heating contractors, department stores, appliance stores and other sales outlets in the Pittsburgh district which may become interested in the sale of conversion burner equipment.

## Visitors to Cleveland Laboratory

During the past few weeks the Testing Laboratory in Cleveland has been host to prominent gas engineers from England, Japan, and Roumania, as well as to a number representing various companies in the United States.

Stephen Lacey and Russell W. Lowman, controller of gas sales and assistant gas sales manager, respectively, of The Gas Light & Coke Company, London, England, spent considerable time at the Laboratory in August, reviewing the work carried on there and studying the procedure and effects of the certification program.

It is interesting to note that while delegates from many foreign countries, including England, Germany, Poland, Roumania, Italy, China, Australia, and Japan, have visited the Association's Laboratories during the past year, probably more of these have been from the latter country than from all the others combined.

A few weeks ago Eugene Guman, technical director, Societatea Nationale de Gaz Metan, Medias, Roumania, made an extensive inspection tour of the United States, studying natural gas production and utilization practices, stopping for several days in Cleveland to inspect the Testing Laboratory.

Among the educators who have called at the Laboratory recently to secure first-hand information concerning its activities are, C. M. Young, professor of mining engineering, University of Kansas, Lawrence, Kansas and R. L. Peurifoy, professor, Texas College of Arts and Industries, Kingsville, Texas. The Texas College of Arts and Industries is contemplating the presentation of a course in gas engineering, consequently, Professor Peurifoy was especially interested in the work carried on by the Association's Laboratories in Cleveland and Los Angeles.

Many appliance manufacturers and utility company representatives visit the Cleveland and Los Angeles Laboratories each month. Usually one or more manufacturer representatives are at the Laboratory making changes in, or preliminary tests on, their appliances in connection with approval tests.

Among the utility company engineers to call at the Cleveland Laboratory in August, was D. R. Bayers of the Minneapolis Gas Light Company, Minneapolis, Minnesota. Mr. Bayers spent approximately a week at the Laboratory securing data regarding appliance adjustments and the effects of various gas rates on appliance performance.

# Appliance and Equipment Developments

## New Conversion Burner

The Surface Combustion Corporation, Toledo, Ohio, recently announced the marketing of a conversion burner featuring attractiveness and simplicity. The control mechanism has been simplified in such a manner as to improve the general appearance of the burner and also to eliminate piping previously used. The Janitrol burner has an electrical lighter, obviating the necessity for an open flame to light the pilot. According to the manufacturers, noise reduction has been achieved by redesigning the burner heads.

## Welding Blowpipe Head

The Linde Air Products Company, 30 East 42nd Street, New York, N. Y., has announced a new Multi-Flame Linde-welding Head consisting of a chromium-plated stem and tip for use with certain standard blowpipes. Its design is a radical departure from previous styles in that the tip provides three flames: a main welding flame in the usual position, and two smaller auxiliary flames so positioned as to preheat both edges of the vee ahead of the advancing puddle.

The Linde Company is featuring a demonstration of this new technique of welding in an exhibit at the National Metals Exposition to be held in New York, during the week of October 1.

## R-S Products Corp.

The R-S Products Corporation has completed the purchase of all of the assets of patent rights, good will, etc., of Ryan, Scully & Company, according to an announcement by F. J. Ryan, president. The purchase was the result of an initial step taken a year ago when this corporation entered into a contract to take over the organization and control of Ryan, Scully & Company.

The engineering department of the company, which was previously under the direction of G. F. Beach, deceased, previous chief engineer of Ryan, Scully & Company, is now under the direction of J. A. Ehlinger, who was Mr. Beach's direct understudy and assistant for many years.

## PEMCO Personnel Changes

Karl Türk has been elected president of The Porcelain Enamel & Manufacturing Co. of Baltimore, according to an announcement by the board of directors. The Türk brothers founded the company, and also its predecessor some twenty-four years ago. Recently Heinrich Türk, due to ill health, retired as chairman of the board and president. W. Graham Boyce, associated with the company for the last seventeen years as secretary and treasurer, was elected to the office of chairman of the board.

Contributions of news items by manufacturers of gas appliances and equipment to this department will be welcomed by The A. G. A. Monthly. On account of space limitations, all announcements of new products, improvements, etc., should be limited to about 100 words. No attempt will be made to describe each product or give details of construction. For such details address the manufacturer direct. Where justified, photographs will be used to illustrate these brief items. All contributions to this department should be addressed to C. W. Berghorn, Secretary, Manufacturers' Section, American Gas Association, 420 Lexington Ave., New York, N. Y.

## Centrifugal Compressors and Exhausters

A recent addition to the line of centrifugal compressors and exhausters built by the Roots-Connersville Blower Corp. of Connersville, Ind., is the single-stage Type OIB unit. In this design, the machines have their own shafts and bearings and are suitable for direct connection to standard electric motors or steam turbines, without special shaft extensions. They are also adaptable to V-belt or flat belt drive.

Impellers are furnished in aluminum or carbon steel in the standard construction, but special alloys can be supplied where conditions require. Open-type impellers are used in the smaller sizes, with closed type for larger machines. Each impeller is designed to meet specified requirements.

## Dual-Thermoray Heater

A new line of heaters, featuring the Dual-Thermoray, has been introduced by F. O. Schoedinger. The Low-Boy Model is a combination radiant and circulating heater in which the Thermoray burner principle is employed. It is adaptable for use in the home, office, store or shop.

The design is semi-modernistic, with chrome-plated grilles in the front and two side openings. The arched design, according to the manufacturer, gives rigidity and offers almost 100 per cent free opening for the flow of heat from the burners. The finish is grained walnut, with sliding doors in burled walnut, all vitreous porcelain enamel. When radiant heat is desired, the doors slide completely out of sight.

## Chase Retires from Worthington

Henry M. Chase, who entered the engineering department of the Holyoke

Works of the Worthington Pump and Machinery Corporation (then the Deane Steam Pump Co.) on June 17, 1891, and, with the exception of about one year spent with the De La Vergne Mfg. Co., continuously identified with Worthington, has retired. First as detail draftsman, then as designer, field and shop test engineer, research engineer, estimator, chief draftsman, chief engineer and consulting engineer, he covered practically the whole line of Holyoke Works products.

Mr. Chase invented and patented a number of improvements in pumping machinery among which were the present type automatic Duplex direct-acting steam pump, the multicapacity triplex power pump, the Deane air pump with mechanically operated bucket valves, etc. The greater part of his inventive work, however, has been in improvements and refinements on existing products for which no patents were issued, but which have advanced the status of steam and power pumping machinery.

## Safety Gas Cock

The Inland Safety Gas Cock has a positive sequence of actions. Gas to the pilot must be turned on first, then a second operation must be made before gas can be turned into the burner. It is impossible to use the lighter with gas passing to the burner. This device is manufactured by the A. Y. McDonald Mfg. Co., Dubuque, Ia., and distributed by the Inland Mfg. Co., Chicago.

All gas is controlled by the one cock. In the closed position, the burner, pilot and lighter are off. In the start position, only the pilot and lighter are on. In the open position, the pilot and burner are on. The cock assists the customer in lighting and makes it impossible to choke the flow of gas to the pilot. The cock is locked in the start and open positions, preventing inadvertent movement of the lever handle.

## Air Conditioning System

The Security Stove & Manufacturing Company, 1630 Oakland Ave., Kansas City, Mo., has announced the manufacture of an air conditioning system, known as the Forced-Air Security Gas Furnace System. According to the manufacturer, this system completely conditions the air by: Warming it to the proper temperature in winter; furnishing moisture to properly humidify the air; filtering out dirt, dust, bacteria and foreign matter; providing cooling circulation of air in summer.



# Monthly Summary of Gas Company Statistics

For Month of July, 1934

Issued September, 1934, by the Statistical Department of the American Gas Association  
420 Lexington Avenue, New York, N. Y.

PAUL RYAN, Chief Statistician

## COMPARATIVE DATA ON THE MANUFACTURED AND NATURAL GAS INDUSTRY FOR THE MONTH OF JULY

	Month of July			Seven Months Ending July 31		
	1934	1933	Per Cent Change	1934	1933	Per Cent Change
<b>Customers</b>						
Domestic (Including House Heating).....	14,699,400	14,341,400	+ 2.5	See July		
Industrial and Commercial.....	731,500	714,600	+ 2.4			
Total .....	15,430,900	15,056,000	+ 2.5			
<b>Revenue (Dollars)</b>						
Domestic (Including House Heating).....	32,732,000	33,162,400	- 1.3	314,754,300	316,735,200	- 0.6
Industrial and Commercial.....	13,562,500	12,580,300	+ 7.8	110,237,500	96,481,800	+14.3
Total .....	46,294,500	45,742,700	+ 1.2	424,991,800	413,217,000	+ 2.8

## COMPARATIVE DATA ON THE MANUFACTURED GAS INDUSTRY FOR THE MONTH OF JULY

<b>Customers</b>						
Domestic .....	9,457,300	9,320,500	+ 1.5	See July		
House Heating.....	86,800	43,700	+98.6			
Industrial and Commercial.....	441,400	436,800	+ 1.1			
Miscellaneous .....	10,500	8,400	—			
Total .....	9,996,000	9,809,400	+ 1.9			
<b>Gas Sales (MCF)</b>						
Domestic .....	18,021,000	18,449,200	- 2.3	143,339,600	144,340,900	- 0.7
House Heating.....	317,300	206,200	+53.9	19,982,900	13,380,300	+49.3
Industrial and Commercial.....	6,846,000	6,022,700	+13.7	51,855,700	42,667,200	+21.5
Miscellaneous .....	173,700	132,200	—	1,281,700	1,211,100	—
Total .....	25,358,000	24,810,300	+ 2.2	216,459,900	201,599,500	+ 7.4
<b>Revenue (Dollars)</b>						
Domestic .....	22,638,600	23,116,700	- 2.1	173,956,700	176,539,900	- 1.5
House Heating.....	289,200	185,100	+56.2	13,043,800	9,617,900	+35.6
Industrial and Commercial.....	5,164,900	5,026,800	+ 2.7	40,083,000	37,808,200	+ 6.0
Miscellaneous .....	103,700	100,800	—	895,300	925,400	—
Total .....	28,196,400	28,429,400	- 0.8	227,978,800	224,891,400	+ 1.4

## COMPARATIVE DATA ON THE NATURAL GAS INDUSTRY FOR THE MONTH OF JULY

<b>Customers</b>						
Domestic (Including House Heating).....	5,155,300	4,977,200	+ 3.6	See July		
Commercial .....	255,000	246,300	+ 3.5			
Industrial .....	22,800	21,600	+ 5.6			
Miscellaneous .....	1,800	1,500	—			
Total .....	5,434,900	5,246,600	+ 3.6			
<b>Gas Sales (MCF)</b>						
Domestic (Including House Heating).....	11,255,700	11,227,600	+ 0.3	192,778,100	194,841,000	- 1.1
Commercial .....	2,406,100	2,267,800	+ 6.1	35,967,700	34,510,300	+ 4.2
Industrial .....	44,458,600	38,652,600	+15.0	324,717,500	255,642,500	+27.0
Miscellaneous .....	994,700	547,500	—	7,108,600	4,615,900	—
Total .....	59,115,100	52,695,500	+12.2	560,571,900	489,609,700	+14.5
<b>Revenue (Dollars)</b>						
Domestic (Including House Heating).....	9,804,200	9,860,600	- 0.6	127,753,800	130,577,400	- 2.2
Commercial .....	1,259,900	1,191,300	+ 5.8	16,139,100	15,720,300	+ 2.7
Industrial .....	6,875,500	6,167,700	+11.5	51,961,900	41,199,300	+26.1
Miscellaneous .....	158,500	93,700	—	1,158,200	828,600	—
Total .....	18,098,100	17,313,300	+ 4.5	197,013,000	188,325,600	+ 4.6

## July Gas Revenues up 1.2 Per Cent

**M**ANUFACTURED and natural gas companies reported revenues of \$46,294,500 for July 1934, as compared with \$45,742,700 in July 1933, an increase of 1.2 per cent.

Revenues of the manufactured gas industry aggregated \$28,196,400 for the month, and those of the natural gas industry totaled \$18,098,100.

Sales of manufactured gas in July for domestic uses were 2.3 per cent below the preceding year. Sales to industrial-commercial users however registered some increase, manufactured gas companies reporting a gain of 13.7 per cent in this class of business.

For the seven months ending July 31 manufactured and natural gas revenues aggregated \$424,991,800, an increase of 2.8 per cent over the first seven months of 1933. Revenues from domestic consumers were unchanged for the period.

### GAS MEN READY FOR CONVENTION AND EXHIBITION

(Continued from page 333)

#### FIRST TECHNICAL SESSION

TUESDAY, OCTOBER 30

2 P.M.

*Ambassador Hotel*

#### Remarks of Chairman

O. S. HAGERMAN, American Light & Traction Co., Chicago, Ill.

#### Report of Nominating Committee

J. A. PERRY, The United Gas Improvement Co., Philadelphia, Pa.

#### New Meter Repair Shop

C. H. STEVICK, Consolidated Gas Co. of N. Y., New York, N. Y.

#### Review of Work on Pipe Coatings and Corrosion for 1934

DR. SCOTT EWING, A. G. A. Research Associate.

#### Purging

S. S. TOMKINS, Consolidated Gas Co. of New York, New York, N. Y.

#### Review of Developments in Distribution

H. W. BATTIN, The United Gas Improvement Co., Philadelphia, Pa.

#### Features of Heavy Oil Operation—Citizens Works—The Brooklyn Union Gas Company

F. B. PARKE, The Brooklyn Union Gas Co., Brooklyn, N. Y.

### SECOND TECHNICAL SESSION

WEDNESDAY, OCTOBER 31

2 P.M.

*Ambassador Hotel*

#### To the Customer—You Are the Gas Company

I. K. PECK, Boston Consolidated Gas Co., Boston, Mass.

#### Review of Developments in Gas Production

J. V. POSTLES, The Philadelphia Gas Works Co., Philadelphia, Pa.

#### The Gum Problem

W. H. FULWEILER, The United Gas Improvement Co., Philadelphia, Pa.

#### Gas Analysis in a Study of Water Gas Operations

L. J. WILLIEN, Byllesby Engineering and Management Corp., Chicago, Ill.

#### Summary of Activities of the Chemical Committee

E. F. POHLMANN, The Peoples Gas Light & Coke Co., Chicago, Ill.

### NEW NATURAL GAS COURSE—HOW AND WHY IT WAS PREPARED

(Continued from page 343)

The University does have a financial interest, but not with the idea of making money. We hope that there will be no loss, and the cost has been figured as closely as possible in order to prevent one. But the work is undertaken as a proper part of the educational function of the school, with the hope that it will do good.

This sketch is intended to show why and how the text was prepared. Briefly, it was at the request of the American Gas Association. In the course of the work, every resource of that organization was drawn upon, and the help given by individuals was given because the work was sponsored by the Association.

### IMPORTANCE OF SURVEY CALLS AS SALES AIDS

(Continued from page 363)

roast," or "pastries that please,"—thus giving to the woman whom you know "won't buy now" a service she cannot ignore. Again leave behind a copy of "The New Technique." When stormy weather comes along, use your time to call these customers on the phone, and have little chats about their luck and new recipes they have just tried.

If possible, there should be a special girl for this survey work. If not, part of one girl's time can be given to it, as for example, when Home Calls and

Re-calls are up to the minute, extra time can be used for survey work. Names and addresses should be procured from the Consumers' Accounting Department and also their average monthly bills, so a later check can be made as to the value of this call in connection with load building.

My check has proven that 85 per cent of the cooking is done on the surface of the range and when oven cooking, oven breakfasts and roasting, in place of frying, are suggested and eventually carried out, an additional eight to ten per cent per customer on the monthly bill is the result. Mrs. Consumer is prepared to expect this because during the survey, points are brought out which prove that careful buying and scientific cooking will reduce grocery and meat bills to a surprising degree with a few additional cents added to the gas bill.

#### Summary

In short, through the survey call we should strive toward:

- Good-will which will bring more and bigger sales.
- Building and retaining the domestic load. This is done if we emphasize the movements, All-Gas Kitchen and Heat Your Home with Gas.
- Promoting the sale of appliances by personal contact with ten to twenty customers each day that otherwise would not be reached.
- Stimulating the use of appliances. A visit to the customer who "never uses her oven" because "it's no good anyway" and says "It's lots easier to buy bread and pastries from the baker"; To one who heats water in the dish pan for the family bath and wash day, or says she "doesn't need a water heater because it's only a little while till cold weather and the furnace coil heats the water then." When this situation arises, write down all you know of her equipment on your call card and the survey call will pay for itself many times over.

In addition, where the company is a combination gas and electric property, this type of home call combines B.t.u.'s with kilowatts and does double duty. Incidentally, a check of the home lighting is made at the same time giving the customer a full measure of service.

### Radiant Broiling

The Cosmopolitan Hotel at Denver has recently purchased a radiant surface broiler to replace charcoal broiling. It is interesting to note the figures reported by C. W. Gale, superintendent of the industrial gas division, Public Service Co. of Colorado, who stated that not only economy but the improved product were paramount factors in making this sale. He adds that charcoal cost approximately \$500 per year, whereas 830 B.t.u. natural gas at 50 cents per M cu.ft. will only cost \$108 per year.

# Personnel Service

## SERVICES OFFERED

**Gas engineer (39).** Recently manager of small company. Experienced water gas and coke oven operator. Fifteen years' experience in natural gas measurement, distribution and industrial uses, in public relations, rate structures and promotion and sale of all types of gas appliances. 887.

**Manager-engineer;** thirty years' experience design and construction of plants, distribution systems and transmission lines. Organization, operation, management, sales, engineering, valuations, coal water and natural gas, also electricity. Recent experience with heavy oil for water gas and high B.t.u. gas to supplement natural gas. 892.

**Successful Industrial Gas Engineer** desires position where a large potential market awaits progressive efforts and where results will be rewarded. Twenty-three years' experience Natural and Manufactured gas. Thorough knowledge all phases industrial applications, from steam boiler to steel mills. 895.

**Mechanical Engineer,** college graduate, 8 years' experience H. P. and L. P. distribution, water and coal gas production, appliance servicing, natural gas changeover. Desires position as superintendent or manager. Married. Location immaterial. 896.

**Industrial Sales Engineer** desires employment with Eastern Utility. Specialized in Sales Management, Service and Maintenance of House Heating Department, Industrial Steam Boilers and Large Volume Water Heating. Broad experience. Married. 897.

**Engineer,** now employed offers manufacturer or utility benefits of ten years' experience in all phases of heating and air-conditioning; designing, manufacturing, patents, etc. Background 7 years' technical college faculty, national society committee activities, writing, and speaking; wide acquaintance in the industry. 898.

**Personnel Director** with emphasis on education. Ten years' experience in one of the largest gas and electric utility companies in the United States. Leadership in education in the public utility field established and recognized at home and abroad. 901.

**Commercial Manager** with tact, vision, creativeness, resourcefulness and "punch"; unusually successful record as load builder; broad experience with progressive organizations U. S. and Canada supervising domestic and industrial sales, developing economies, analyzing and allocating costs, designing rates, handling advertising, publicity, franchises, State Commission and public relations. Highest credentials. 902.

**Sales Engineer,** one of the pioneers of gas House-heating sales with a background of gas plant operation. Have also had industrial sales, summer air conditioning, sales promotion and dealer relations experience. Prefer eastern states. Married. 903.

**Experienced gas appliance salesman (28),** married, with good education, is desirous of locating with a public utility as sales supervisor or as district representative for a manufacturer. Have had experience in both ends. Prefer eastern states, but will go anywhere. Can furnish best of references. 904.

**Young energetic, technical graduate (29)** (B. S. and M. S. in Mech. Engr.) with four years' utilization, distribution and construction experience with large natural gas system; married. 905.

**Sales Manager and Salesman** wants responsible selling job. 12 years' successful selling, sales promotion and advertising with specialty manufacturers. County-wide contacts leading jobbers and gas companies. Familiar with fittings, plumbing and heating appliances. College man in prime, clean record, energetic, eager, resourceful, accustomed to large volume business. 906.

**Experienced Sales Representative (36).** Past eight years' experience representative in metropolitan area of two largest range manufacturers, including special promotional work as assistant director sales education; good record and contacts. Desires connection with manufacturer of appliances or as commercial manager of a utility company. 907.

## A REMINDER

Many members, both employers and employees, with entire satisfaction, regularly utilize the facilities **PERSONNEL SERVICE** provides. The advertisement and the confidential classification record for the applicant, and the advertisement for the company, are available without charge and are handled confidentially.

Association policy and foresight, stated twenty-one years ago still control, the following having been abstracted from the text immediately preceding the first advertisement (No. 1) which was published in the first issue (Vol. No. 1, January 1913) of the National Commercial Gas Association Bulletin:

"This column of the Bulletin is open to the companies who desire to avail themselves of the privilege, and all communications will be held strictly confidential.

"Space does not permit of our publishing the requests of all applicants for positions, but the Association, in confidence, will be glad to receive applications for positions for its members, which should state fully all particulars, experience, salary desired, and position wanted.

"Many requests come in from time to time from companies offering excellent opportunities, and any applications on file will be submitted to the companies inquiring.

"No charge is made either to the company or applicant for the service which might be more fully taken advantage of."

Six years later, and fifteen years ago, the American Gas Association Monthly (Vol. 1, Nos. 11-12, November-December 1919), when publishing the first advertisement (Key No. 1) announced:

"Our purpose is to be of service to both employers and employees among members and we shall build up this department and the facilities it can offer as a clearing house to keep pace with the demands made upon us. No charge is made for the service and all communications are regarded as strictly confidential."

This service has thus been available to the industry through good times and bad times; we earnestly bespeak the interest of employers in making even more use of **PERSONNEL SERVICE** for there are still many more competent applicants than jobs that they can fill.

Letters from satisfied employers and records of grateful candidates' successes are matters for appreciation and sources of inspiration.

## SERVICES OFFERED

**Experienced gas range engineering executive** wishes to affiliate with reliable manufacturer. Capable of taking complete charge of design and experimental, laboratory departments, factory methods and correcting production problems. 908.

**Utilization and Sales Engineer** acquainted with Gas Companies, Heating Engineers, Architects, Builders and Plumbers in metropolitan area. Long experience in househeating, waterheating, industrial and restaurant appliances. Is qualified to head a department for a gas company or would represent a manufacturer in New York City. 909.

**Gas Appliance Salesman** with ability to organize a selling force, supervise, create selling plans and methods and conduct any territory in a judicious manner. Conversant with the methods used in contacting wholesale and retail trade, also utility companies. 910.

**As Manager** or in customer relations, trade relations or rate work. Combination plant experience includes problems of regulation, cooperation with other companies and other industries as well as problems of competition. 911.

**Industrial Gas Sales Representative (43).** Adjusting, repairing, designing and selling appliances and burners to every industry. Manufacturer and gas utility experience, domestic and industrial. Willing to travel. Married. 912.

**Engineer** with broad experience in production, distribution, accounting and management; analysis of distribution system and preparation of logical plans for either immediate or future reinforcement or extension; making of and testifying to, inventories and valuations in rate and tax cases. Qualified to install continuous inventory systems. 913.

**Salesman,** electrical products (30), married, graduate electrical trade school. Eight years' experience New York City selling electrical appliances, specialties and material to industrial, public utilities, chain and department stores, realty companies, banks, jobbers and retailers. Also experienced sales promotion and missionary work and handling sales correspondence. 914.

**Gas Engineer or Superintendent,** college graduate, thoroughly experienced in the gas industry, including coal, water and oven gas manufacture, natural gas conversion work, pipe line construction maintenance and metering, high- and low-pressure distribution, also selling, installing and maintenance of house heating equipment. 915.

**Executive Assistant,** graduate of recognized engineering school with additional education in finance, accounting and statistics. Ten years' broad experience in gas and electric field. Can handle problems dealing with production sales, merchandising, rates on finance, make market surveys and prepare analytical reports on many phases of utility operation. Married (32). 916.

**Gas Engineer,** 20 years' practical experience in all branches—manufactured and natural gas—holding company experience—highly successful in improving operating and distribution conditions. Recognized expert in federal court and commissions on appraisals and gas company operations. 917.

## POSITIONS OPEN

**Manufacturer** well-known line of automatic temperature, pressure and flow controls used for domestic, commercial and industrial purposes is desirous of obtaining **Manufacturer Distributors** in a number of eastern and mid-western states. Prefer man or organization, control minded and contacts public utilities and heating contractors. Must have best references. Straight commission. 9275.

**A manufacturer** of one of America's finest and most complete lines of automatic water heaters doing an exceptional business in all territories covered is desirous of increasing field representation, preferably among representatives selling utilities now carrying other non-competitive lines. These water heaters offer manufacturers maintaining sales organizations an opportunity to bolster the earnings of their men with little or no effort detracted from present line. Increased commission builds morale and makes it possible to put forth effort in territories where single lines may not justify. 9277.



## Advisory Council

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# AMERICAN GAS ASSOCIATION, Inc.

HEADQUARTERS, 420 LEXINGTON AVENUE, NEW YORK, N. Y.

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